FIG. 1

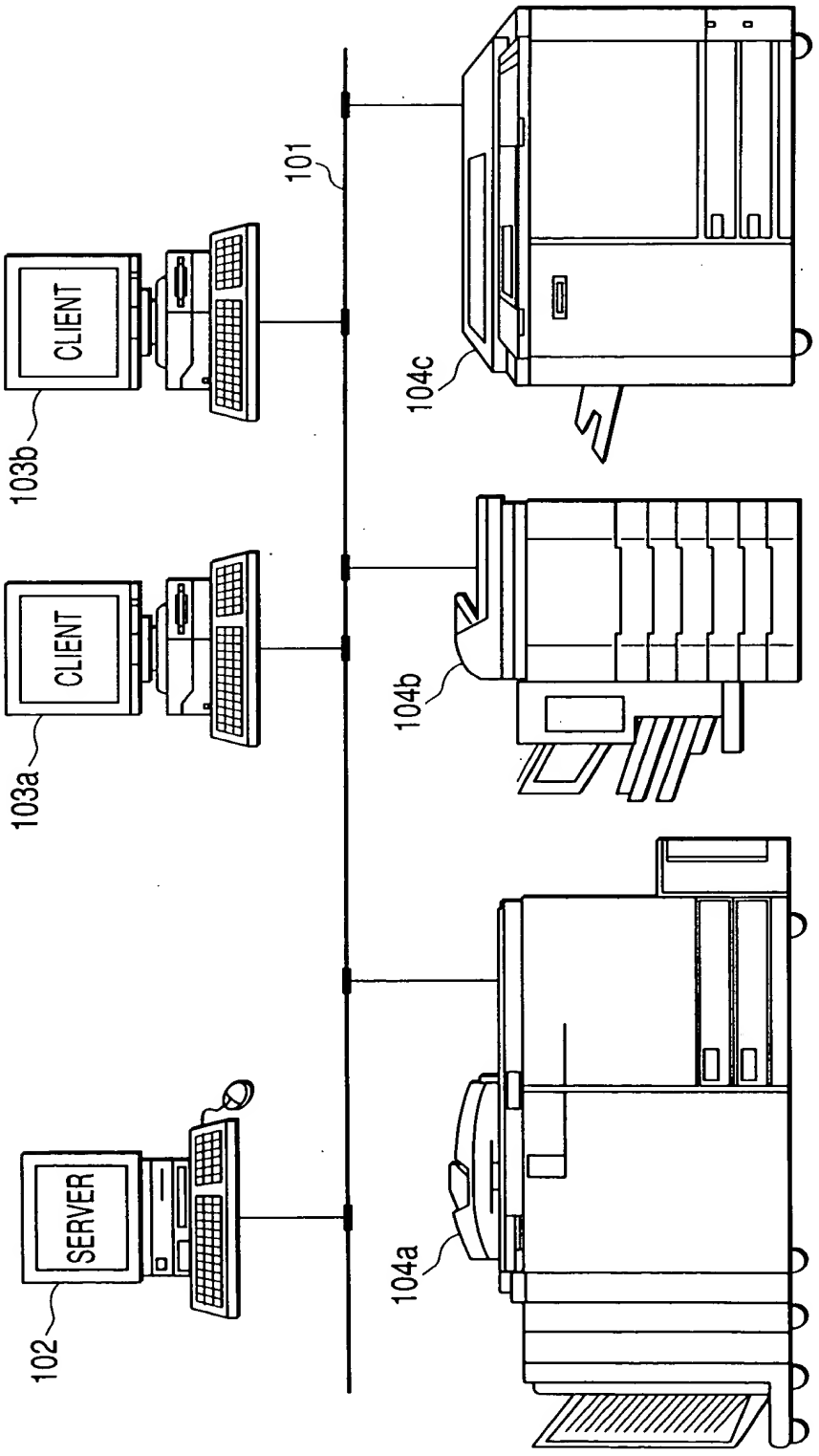


FIG. 2

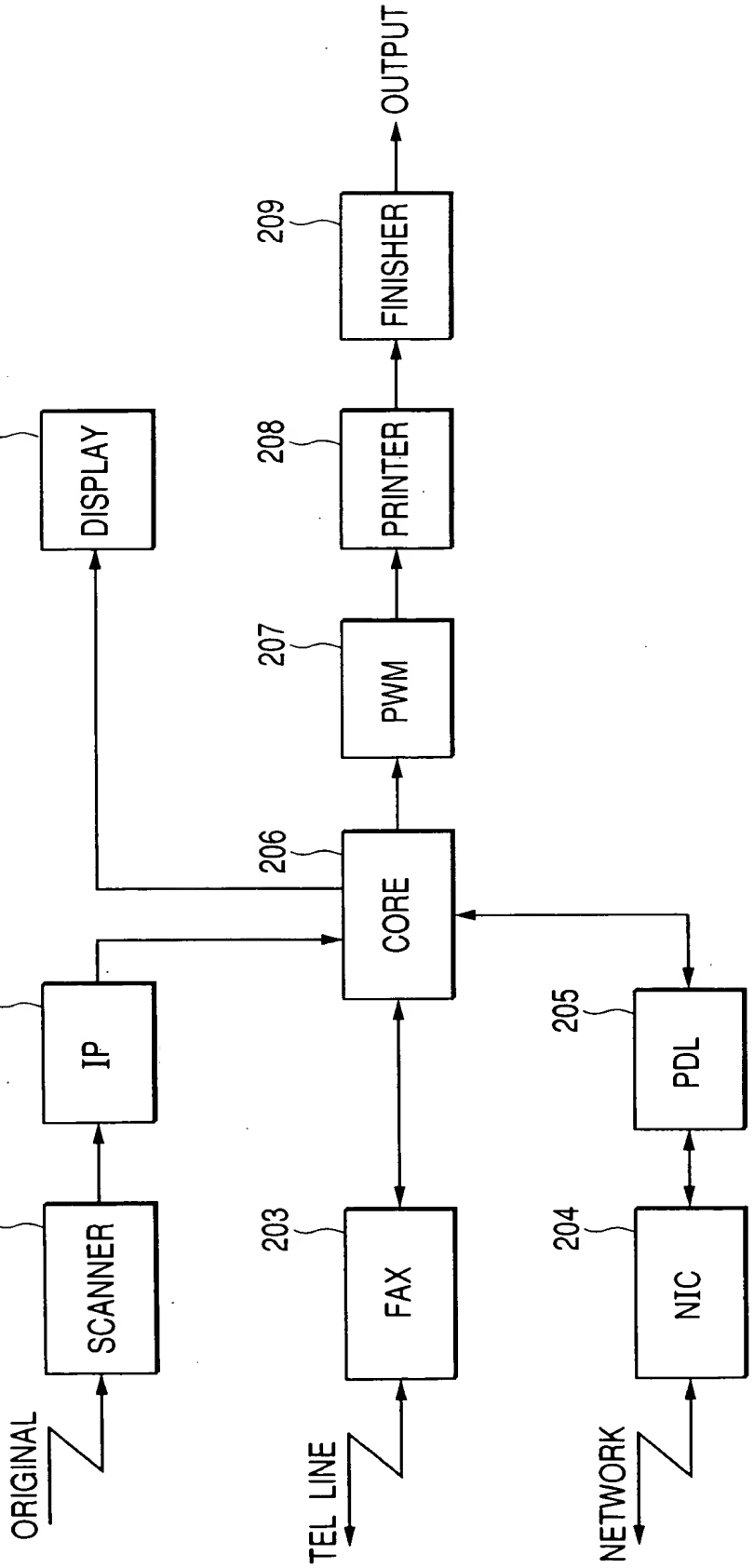

ORIGINAL
201
SCANNER
202
IP
TEL LINE
203
FAX
NETWORK
204
NIC
205
PDL
206
CORE
207
PWM
208
PRINTER
209
FINISHER
OUTPUT
210
DISPLAY

FIG. 3

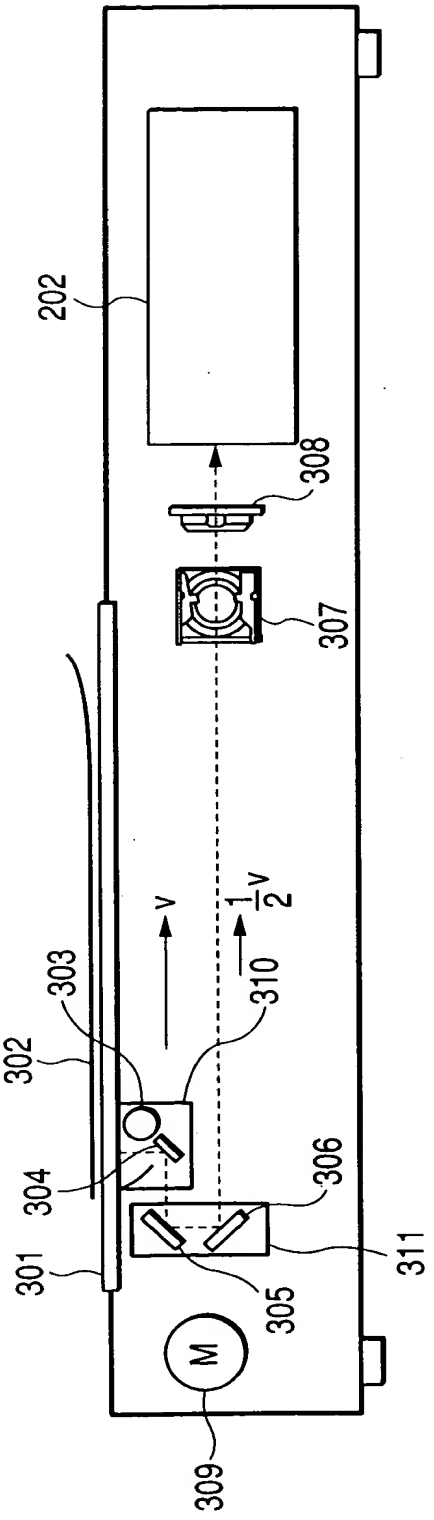


FIG. 4

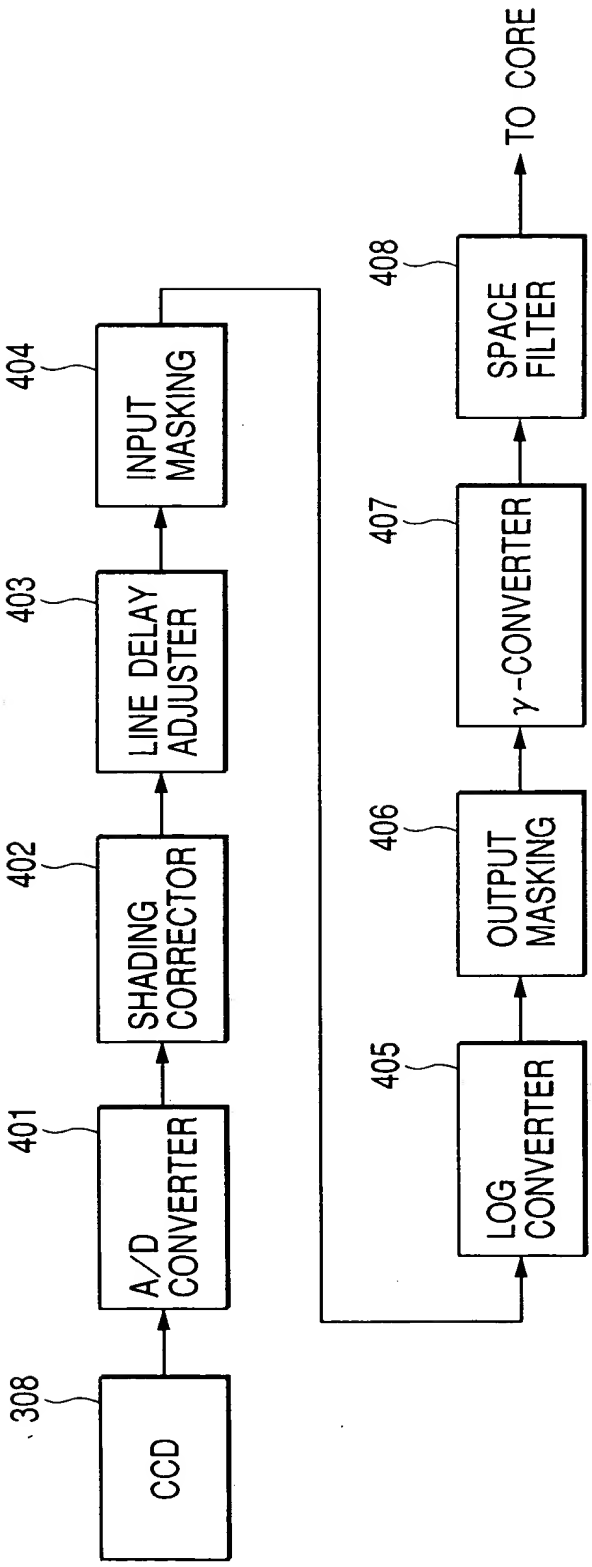

308
CCD
401
A/D CONVERTER
402
SHADING CORRECTOR
403
LINE DELAY ADJUSTER
404
INPUT MASKING
405
LOG CONVERTER
406
OUTPUT MASKING
407
γ-CONVERTER
408
SPACE FILTER
TO CORE

FIG. 5

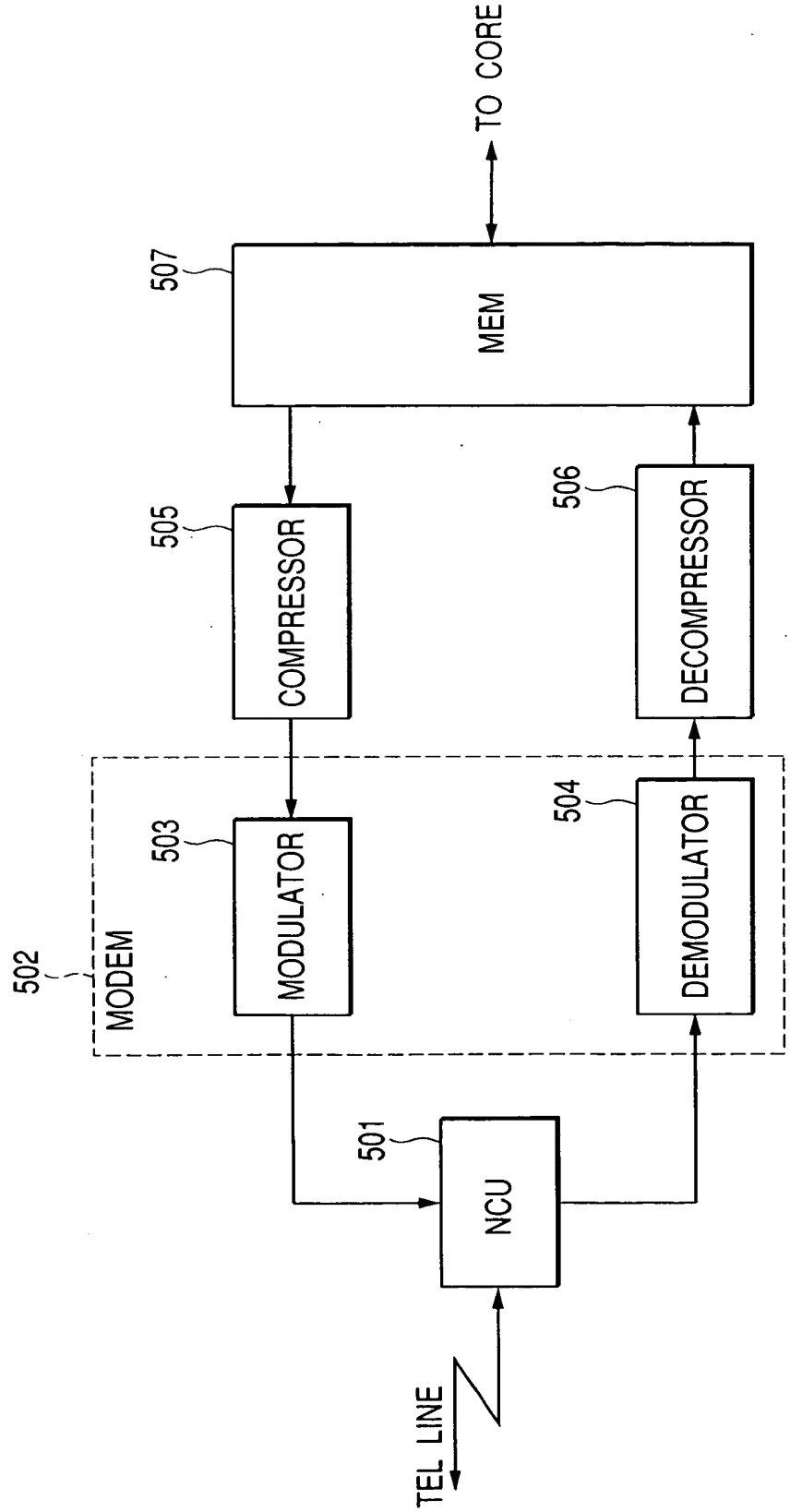

TO CORE
507
MEM
505
COMPRESSOR
506
DECOMPRESSOR
502
MODEM
503
MODULATOR
504
DEMODULATOR
501
NCU
TEL LINE

FIG. 6

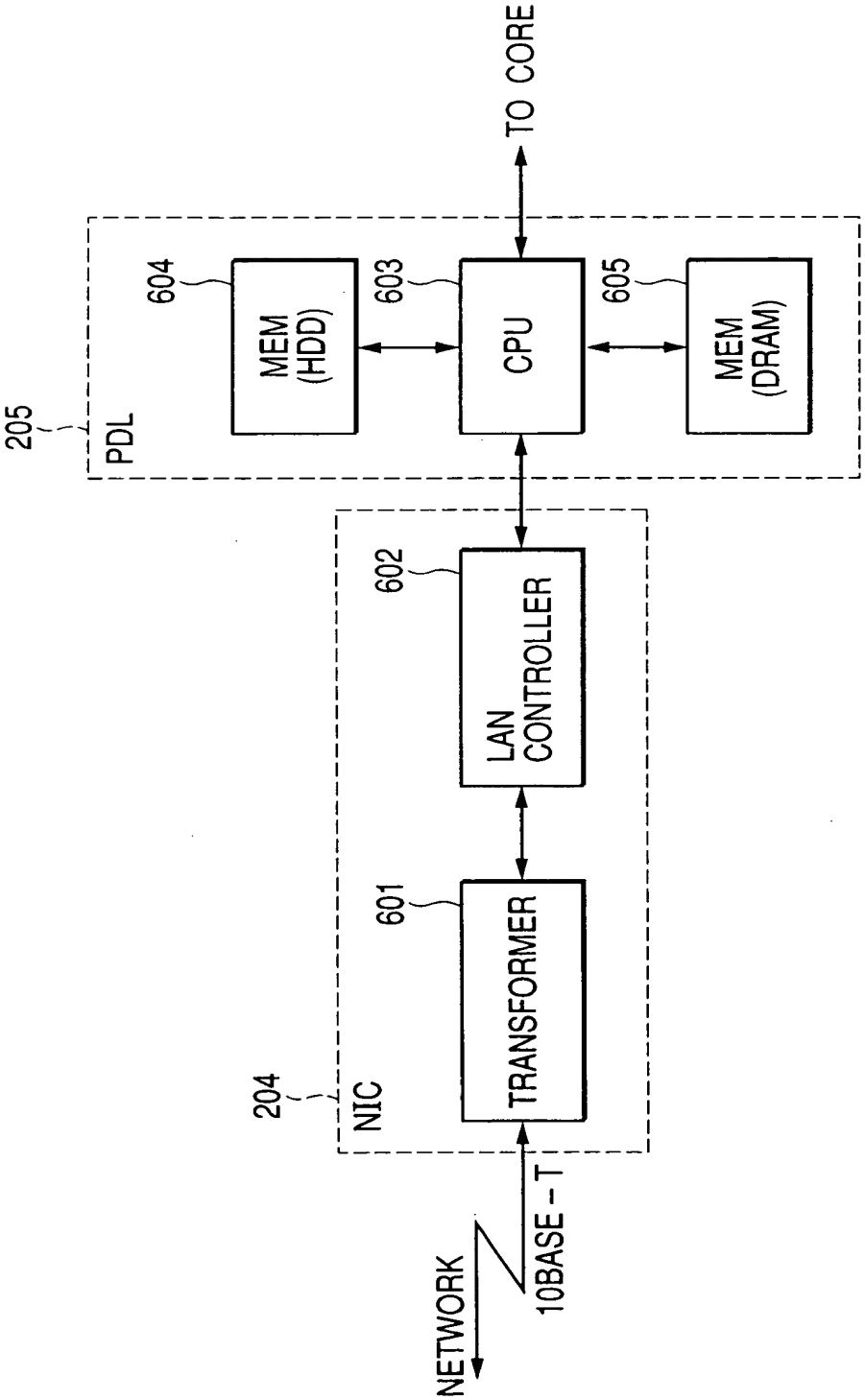

TO CORE
205
PDL
604
MEM (HDD)
603
CPU
605
MEM (DRAM)
602
LAN CONTROLLER
601
TRANSFORMER
204
NIC
10BASE - T
NETWORK

FIG. 7

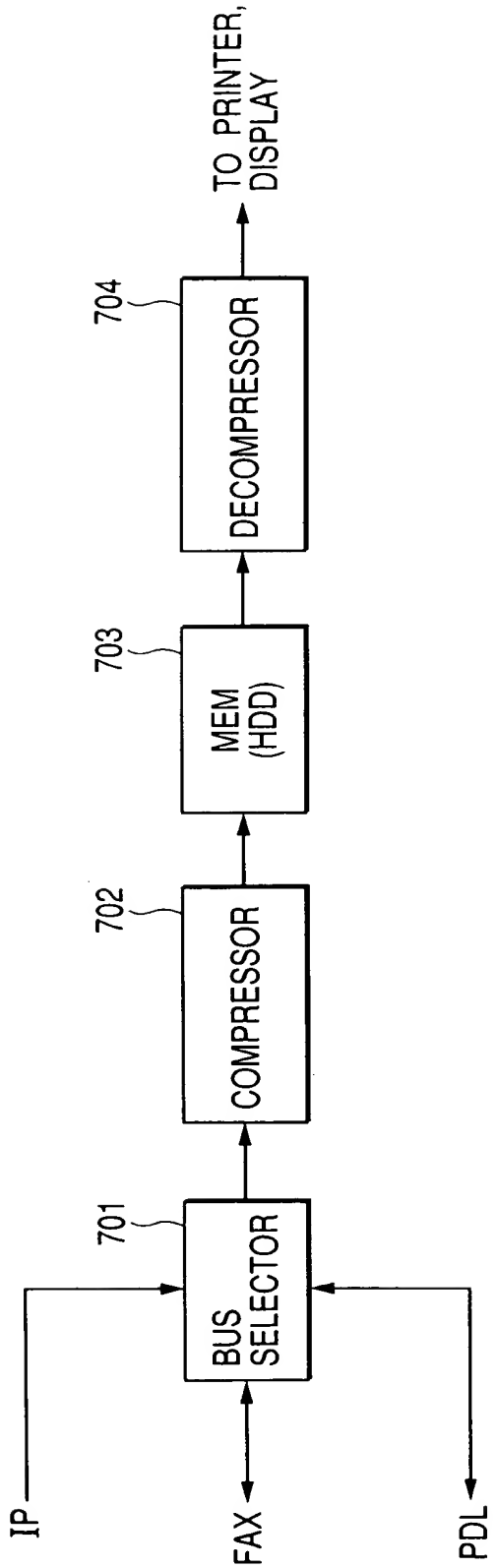

IP
FAX
PDL
701
BUS SELECTOR
702
COMPRESSOR
703
MEM (HDD)
704
DECOMPRESSOR
TO PRINTER, DISPLAY

FIG. 8

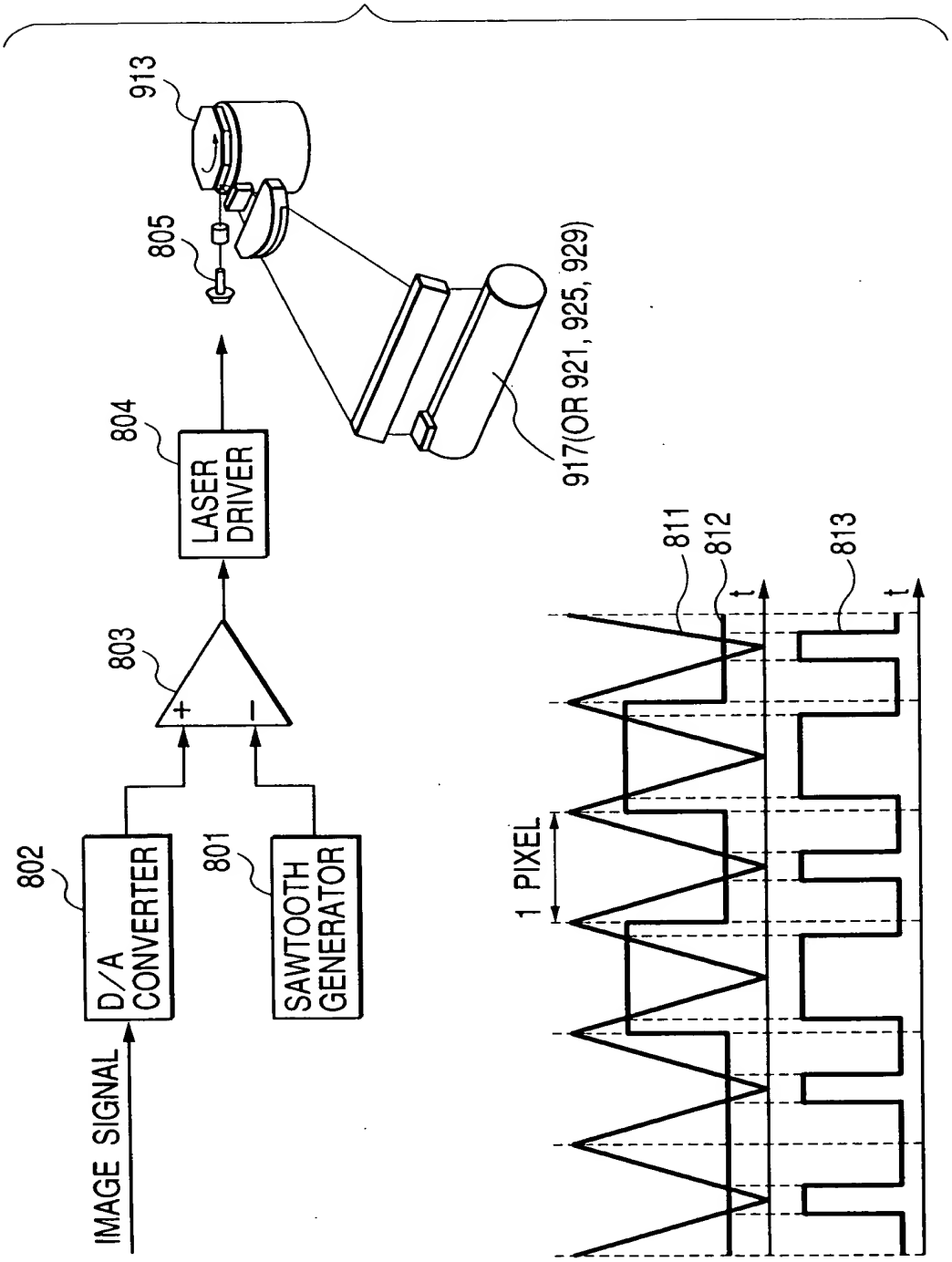

913
805
804
LASER DRIVER
917(OR 921, 925, 929)
803
+
−
802
D/A CONVERTER
801
SAWTOOTH GENERATOR
IMAGE SIGNAL
811
812
813
t
t
1 PIXEL

FIG. 9

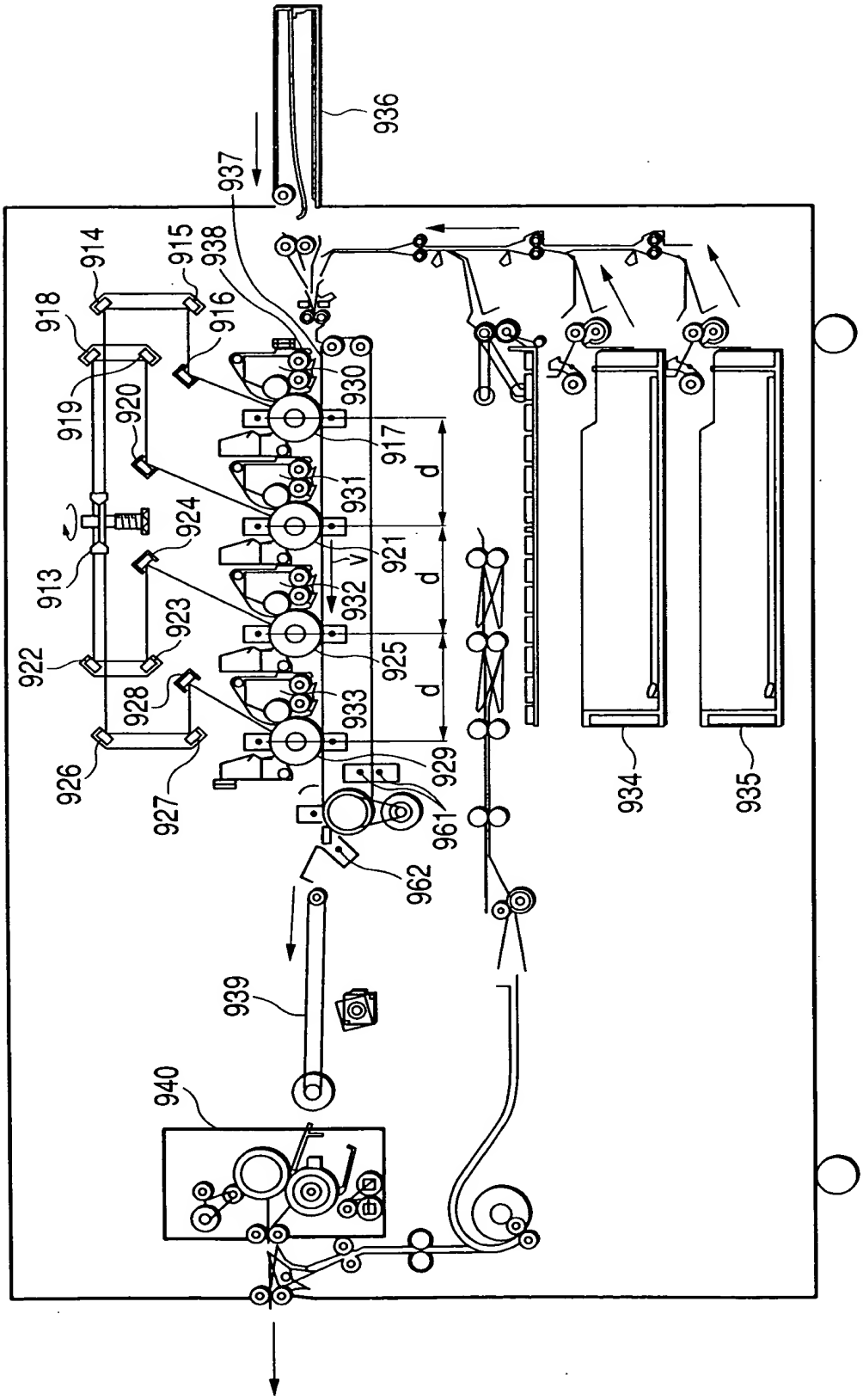

936
937
914
915
938
916
918
919
920
930
917
931
924
921
913
932
923
925
922
928
933
926
927
929
961
962
934
935
939
940
d
d
d

FIG. 10

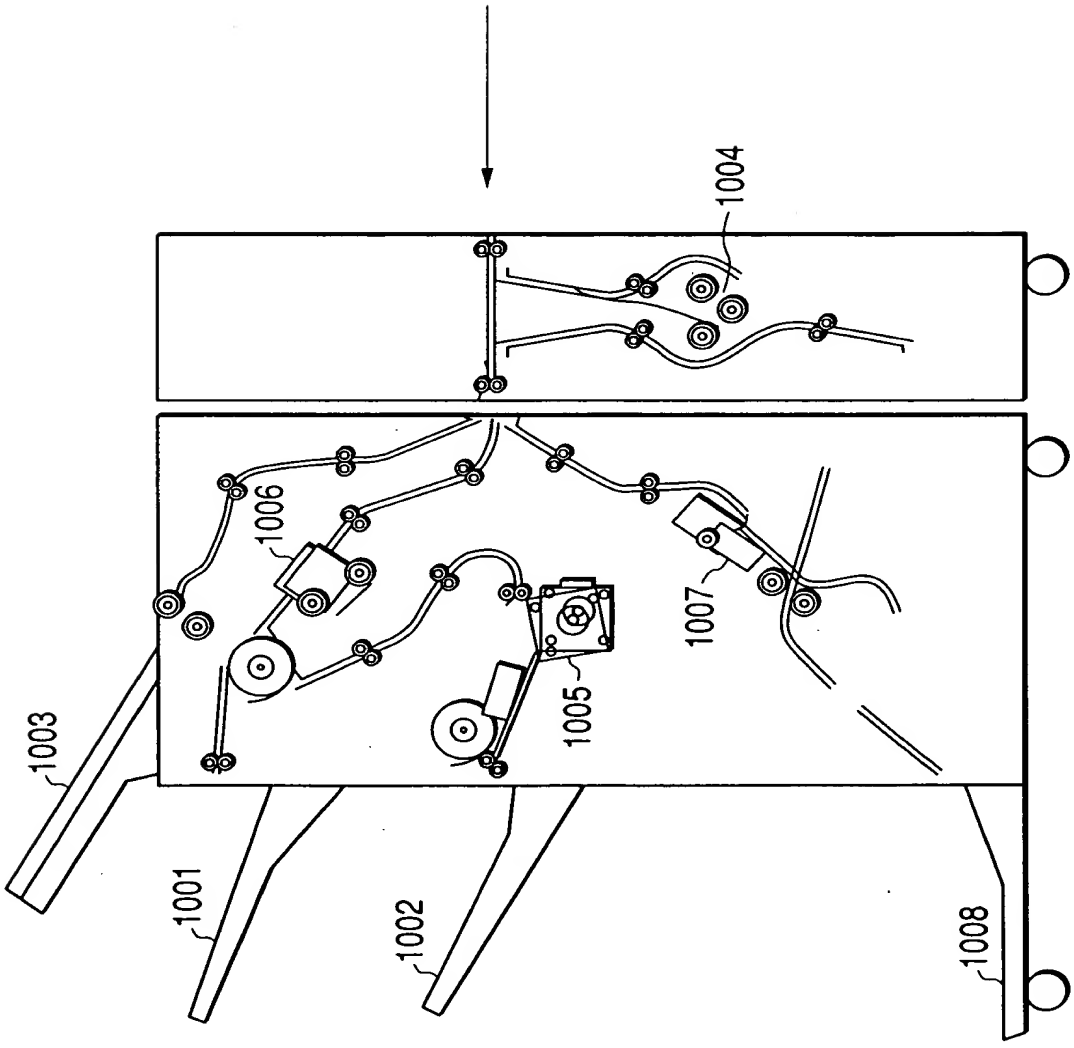


FIG. 11

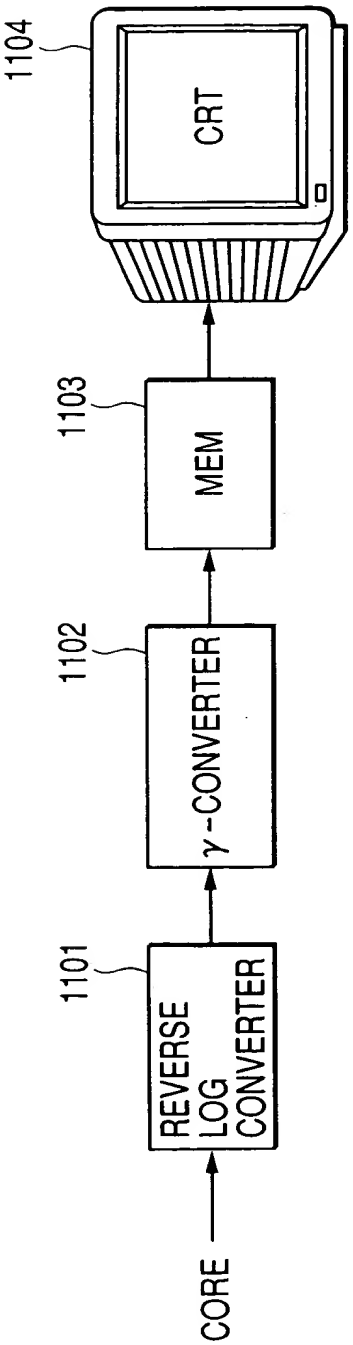

CORE
1101
REVERSE LOG CONVERTER
1102
γ-CONVERTER
1103
MEM
1104
CRT

FIG. 12

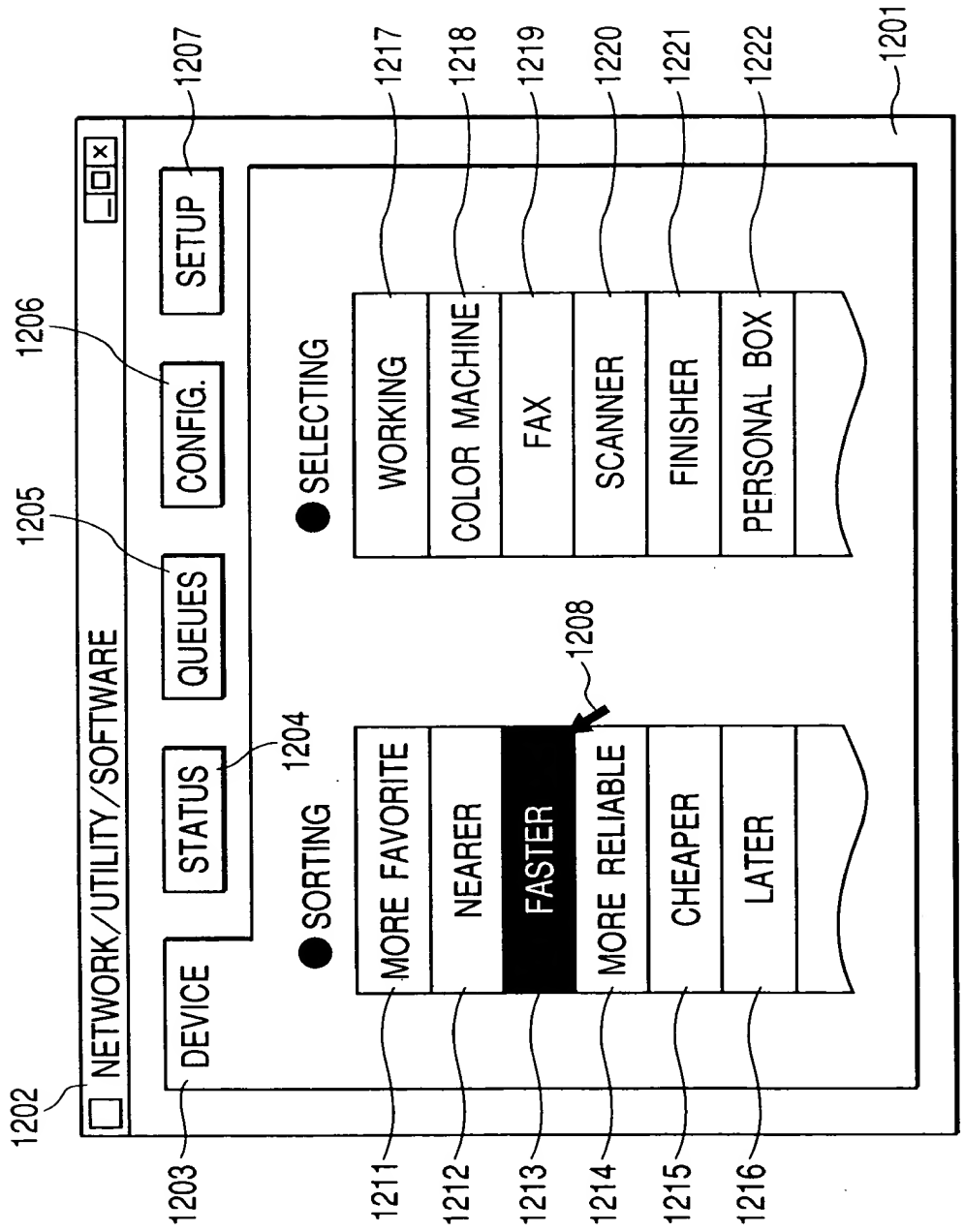

NETWORK/UTILITY/SOFTWARE
DEVICE
STATUS
QUEUES
CONFIG.
SETUP
SELECTING
SORTING
WORKING
COLOR MACHINE
FAX
SCANNER
FINISHER
PERSONAL BOX
MORE FAVORITE
NEARER
FASTER
MORE RELIABLE
CHEAPER
LATER
1201
1202
1203
1204
1205
1206
1207
1208
1211
1212
1213
1214
1215
1216
1217
1218
1219
1220
1221
1222

FIG. 13

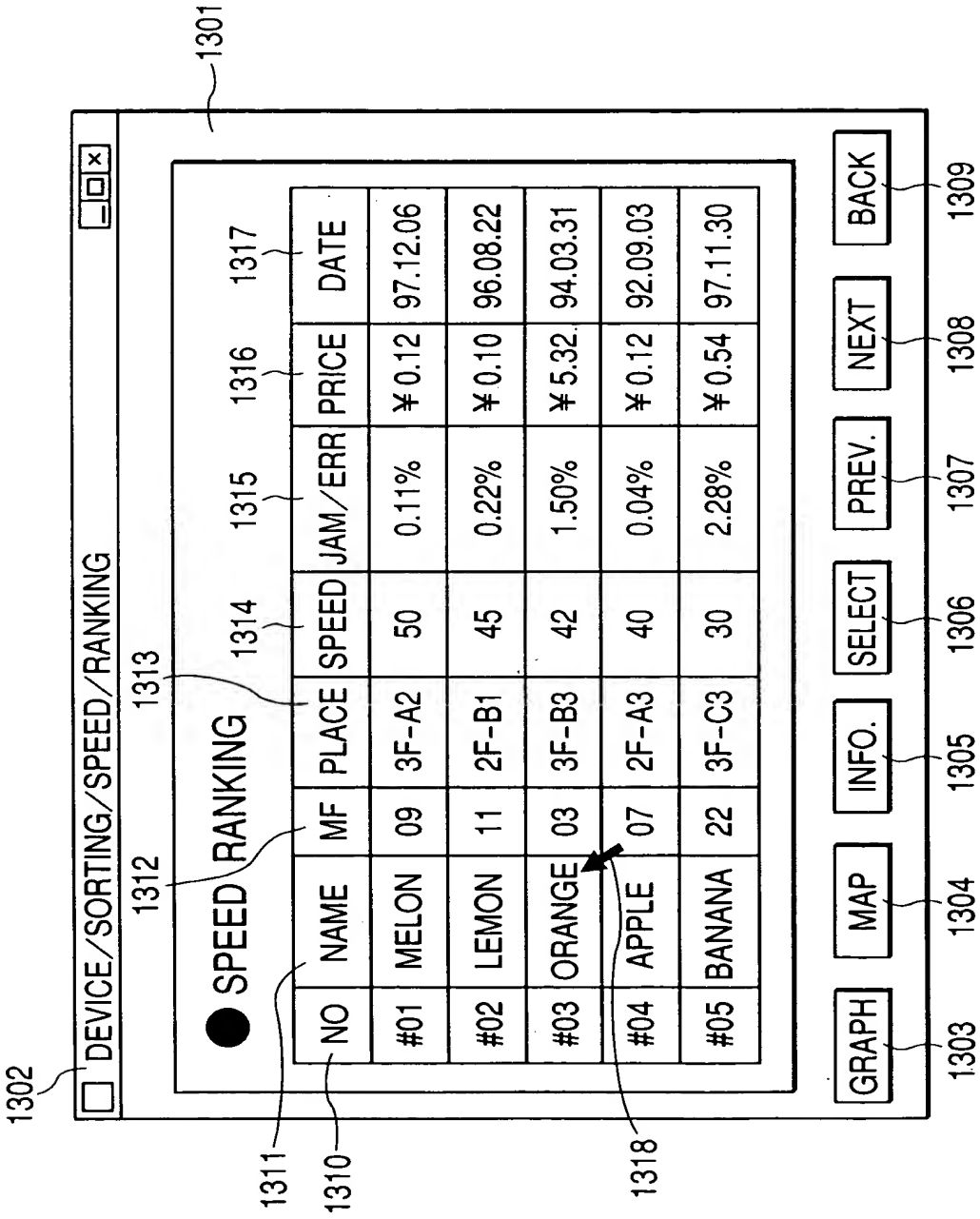

1301
1302
DEVICE/SORTING/SPEED/RANKING
SPEED RANKING
1312
1313
1314
1315
1316
1317
NO
NAME
MF
PLACE
SPEED
JAM/ERR
PRICE
DATE
#01 MELON 09 3F-A2 50 0.11% ¥0.12 97.12.06
#02 LEMON 11 2F-B1 45 0.22% ¥0.10 96.08.22
#03 ORANGE 03 3F-B3 42 1.50% ¥5.32 94.03.31
#04 APPLE 07 2F-A3 40 0.04% ¥0.12 92.09.03
#05 BANANA 22 3F-C3 30 2.28% ¥0.54 97.11.30
1311
1310
1318
GRAPH
MAP
INFO.
SELECT
PREV.
NEXT
BACK
1303
1304
1305
1306
1307
1308
1309

FIG. 14

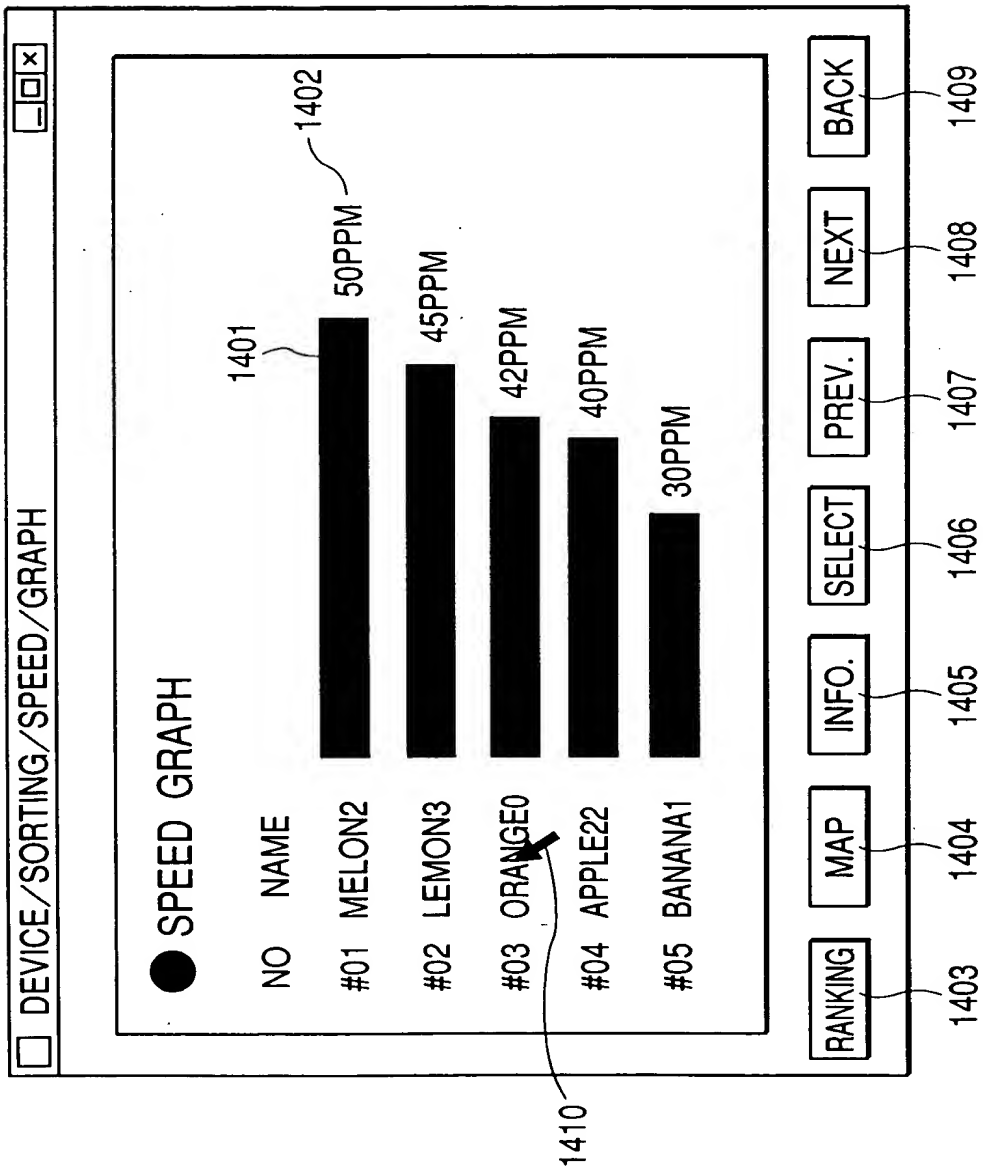

DEVICE/SORTING/SPEED/GRAPH
SPEED GRAPH
NO NAME
#01 MELON2
#02 LEMON3
#03 ORANGE0
#04 APPLE22
#05 BANANA1
50PPM
45PPM
42PPM
40PPM
30PPM
1401
1402
1410
RANKING
MAP
INFO.
SELECT
PREV.
NEXT
BACK
1403
1404
1405
1406
1407
1408
1409

FIG. 15

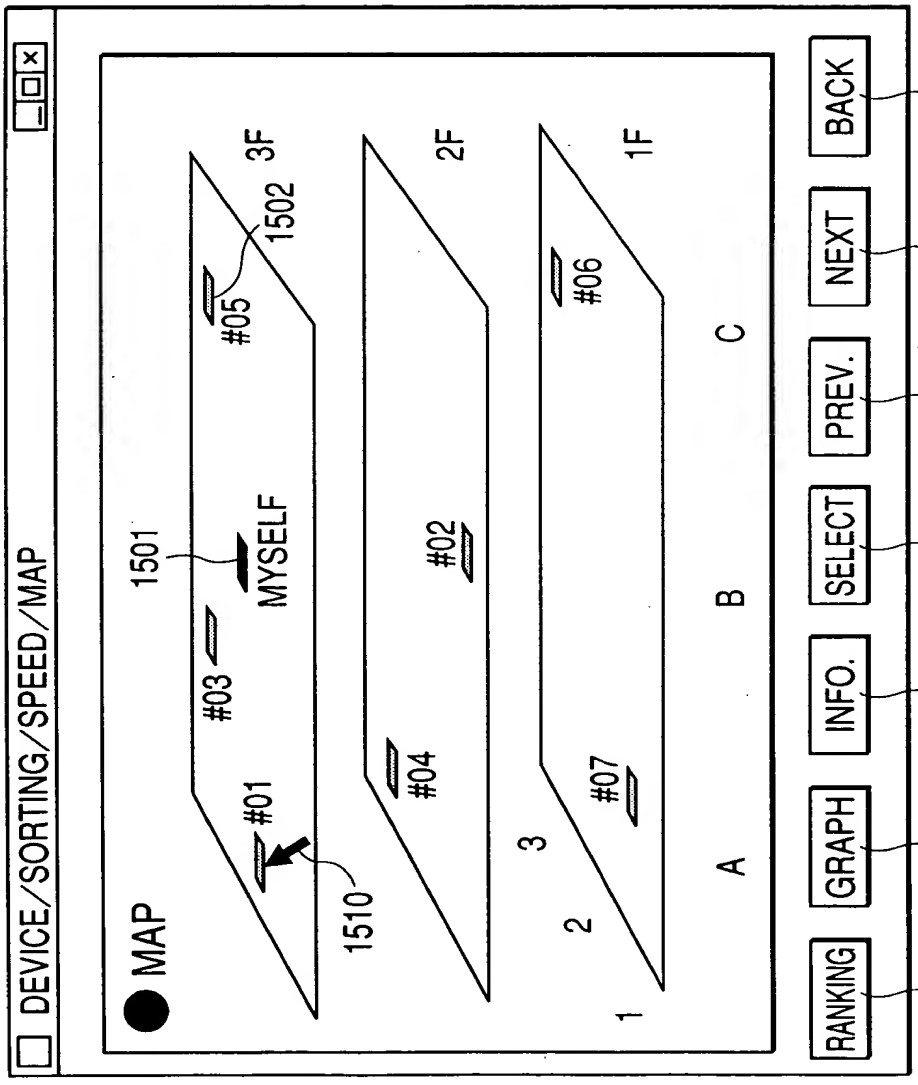

DEVICE/SORTING/SPEED/MAP
MAP
1501
MYSELF
#01
#02
#03
#04
#05
#06
#07
1502
1510
3F
2F
1F
3
2
1
A
B
C
RANKING
GRAPH
INFO.
SELECT
PREV.
NEXT
BACK
1503
1504
1505
1506
1507
1508
1509

FIG. 16

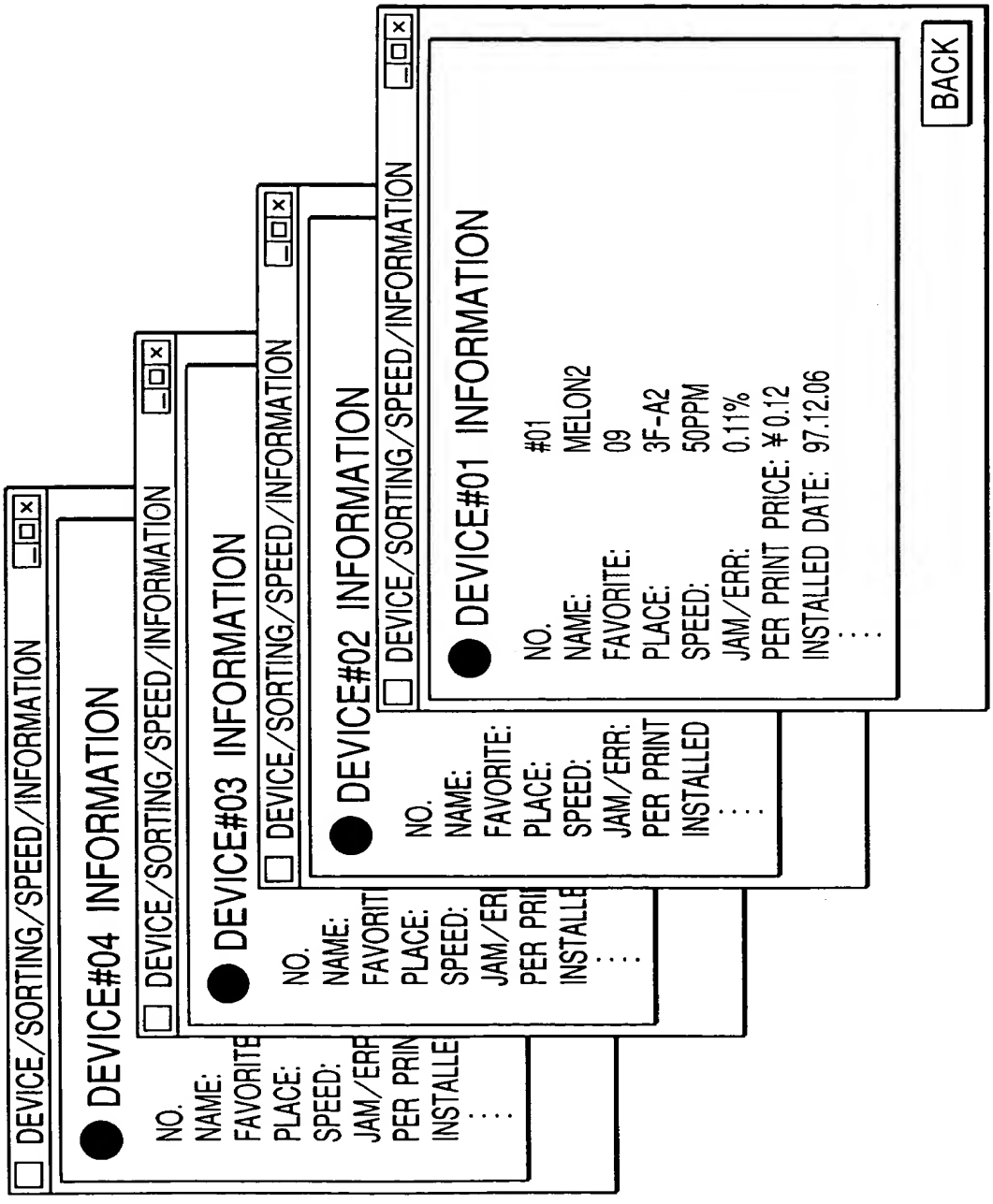

DEVICE/SORTING/SPEED/INFORMATION
DEVICE#04 INFORMATION
NO.
NAME:
FAVORITE
PLACE:
SPEED:
JAM/ERR
PER PRIN
INSTALLE
DEVICE/SORTING/SPEED/INFORMATION
DEVICE#03 INFORMATION
NO.
NAME:
FAVORIT
PLACE:
SPEED:
JAM/ERR
PER PRI
INSTALLE
DEVICE/SORTING/SPEED/INFORMATION
DEVICE#02 INFORMATION
NO.
NAME:
FAVORITE:
PLACE:
SPEED:
JAM/ERR:
PER PRINT
INSTALLED
DEVICE/SORTING/SPEED/INFORMATION
DEVICE#01 INFORMATION
NO. #01
NAME: MELON2
FAVORITE: 09
PLACE: 3F-A2
SPEED: 50PPM
JAM/ERR: 0.11%
PER PRINT PRICE: ¥0.12
INSTALLED DATE: 97.12.06
BACK

FIG. 17

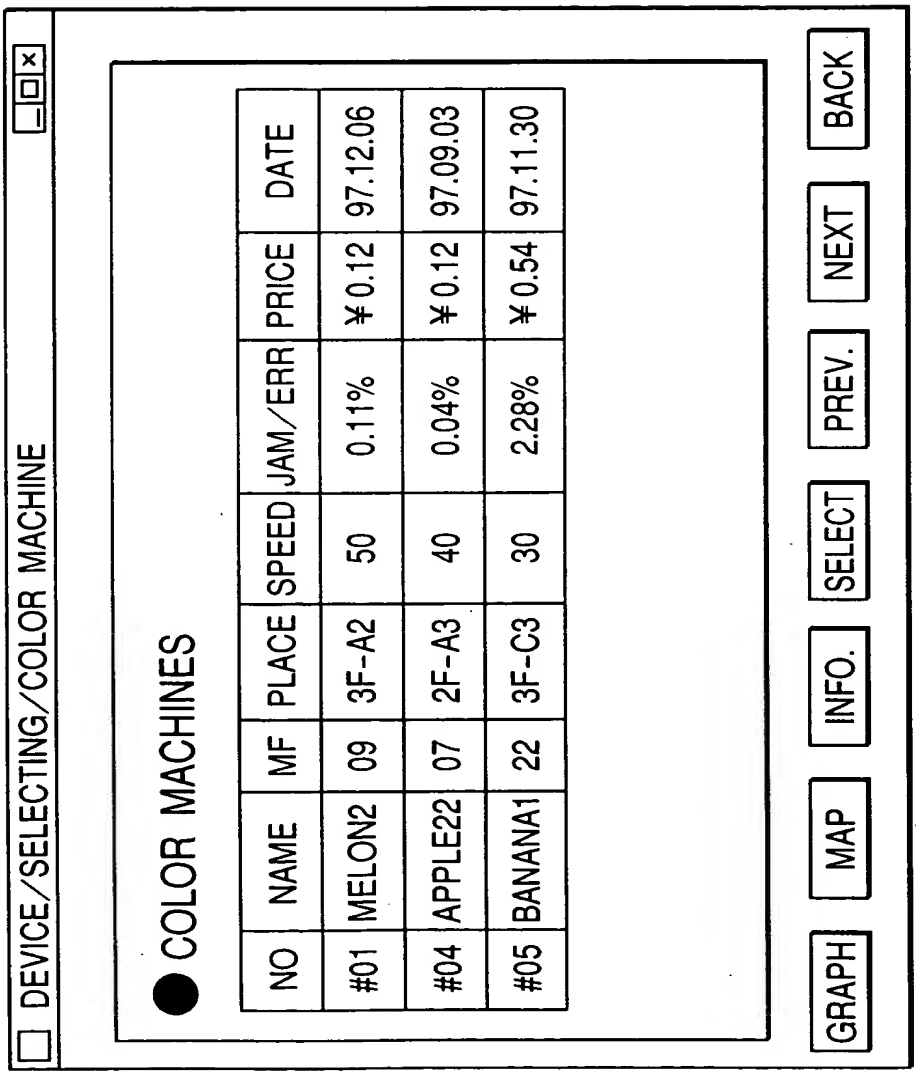

DEVICE/SELECTING/COLOR MACHINE
COLOR MACHINES
NO
NAME
MF
PLACE
SPEED
JAM/ERR
PRICE
DATE
#01
MELON2
09
3F-A2
50
0.11%
¥0.12
97.12.06
#04
APPLE22
07
2F-A3
40
0.04%
¥0.12
97.09.03
#05
BANANA1
22
3F-C3
30
2.28%
¥0.54
97.11.30
GRAPH
MAP
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 18

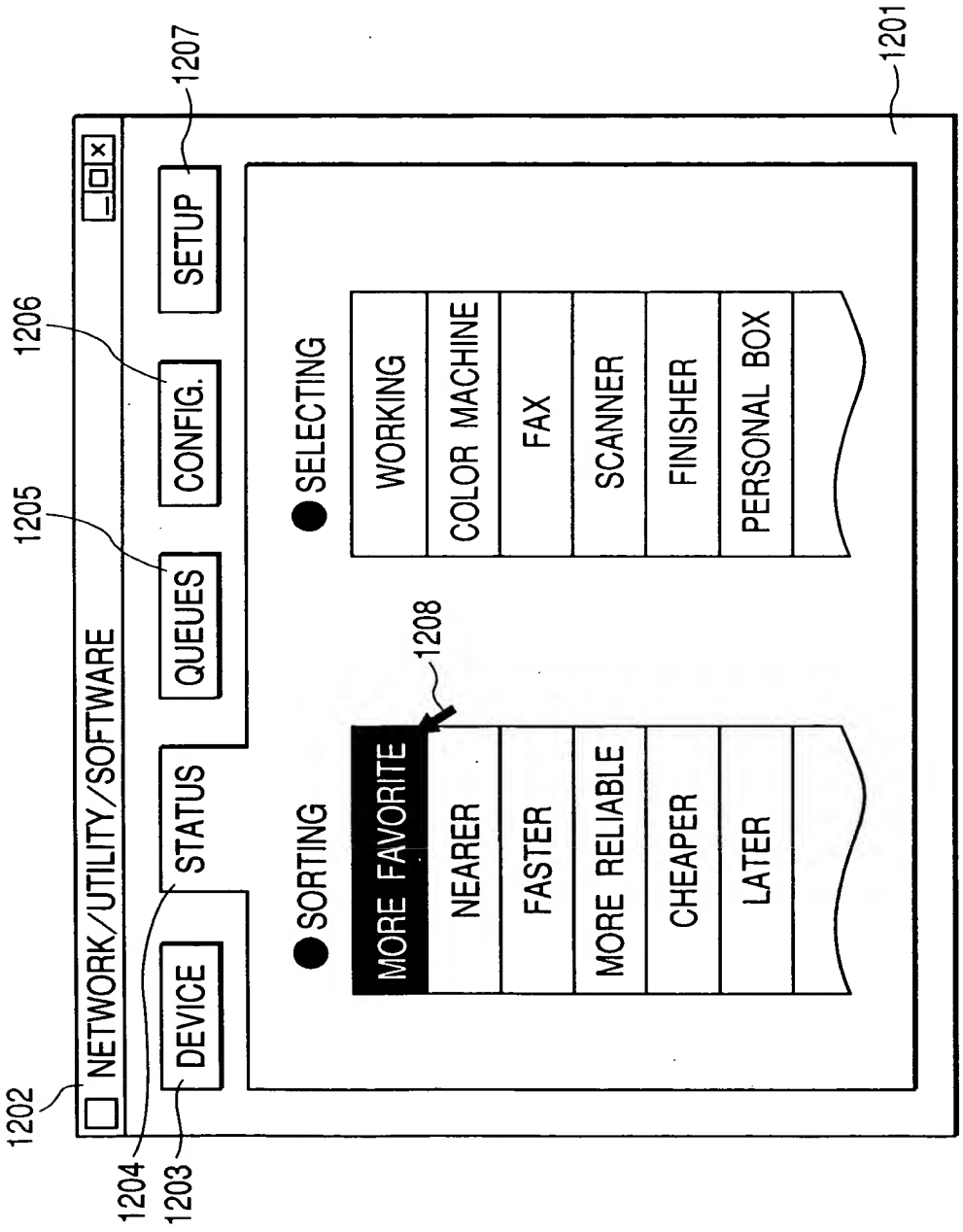

1201
1202
NETWORK/UTILITY/SOFTWARE
DEVICE
STATUS
QUEUES
CONFIG.
SETUP
1203
1204
1205
1206
1207
SELECTING
WORKING
COLOR MACHINE
FAX
SCANNER
FINISHER
PERSONAL BOX
SORTING
MORE FAVORITE
NEARER
FASTER
MORE RELIABLE
CHEAPER
LATER
1208

FIG. 19

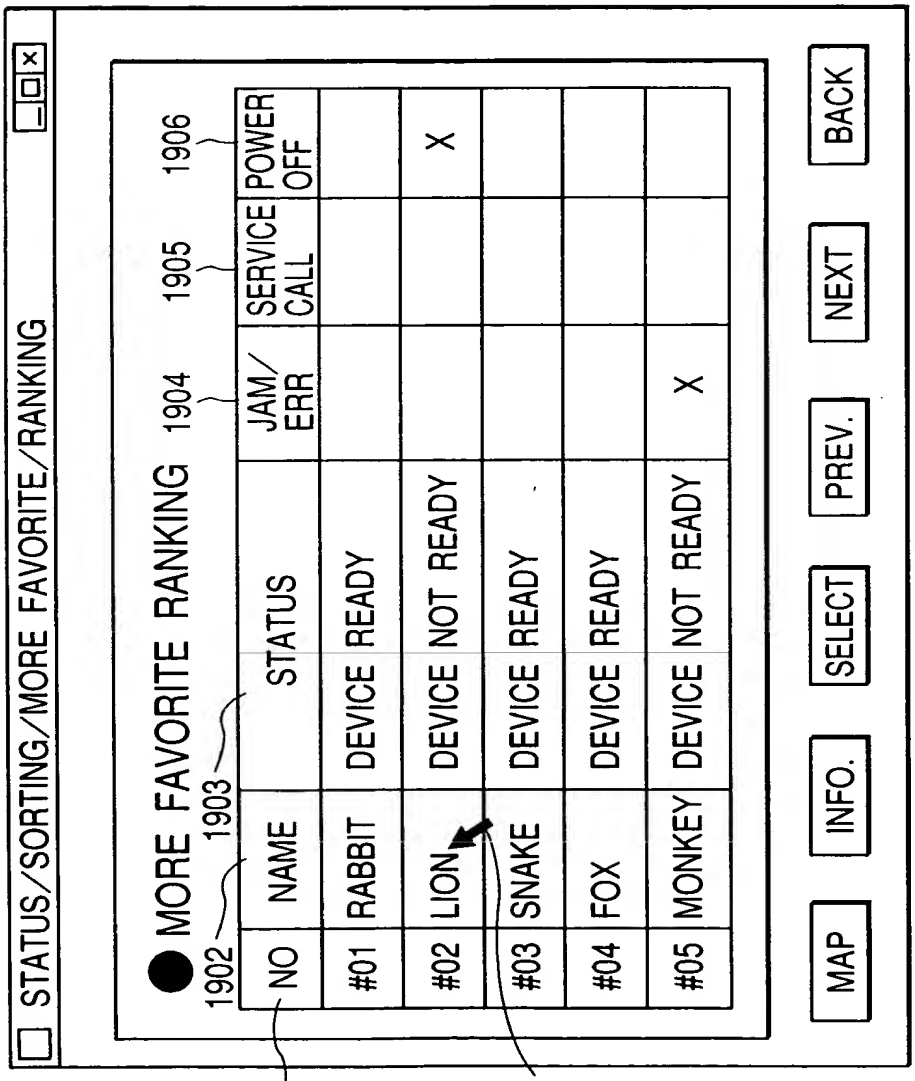

STATUS/SORTING/MORE FAVORITE/RANKING
MORE FAVORITE RANKING
1901
1902
1903
1904
1905
1906
1907
NO
NAME
STATUS
JAM/ ERR
SERVICE CALL
POWER OFF
#01 RABBIT DEVICE READY
#02 LION DEVICE NOT READY X
#03 SNAKE DEVICE READY
#04 FOX DEVICE READY
#05 MONKEY DEVICE NOT READY X
MAP
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 20

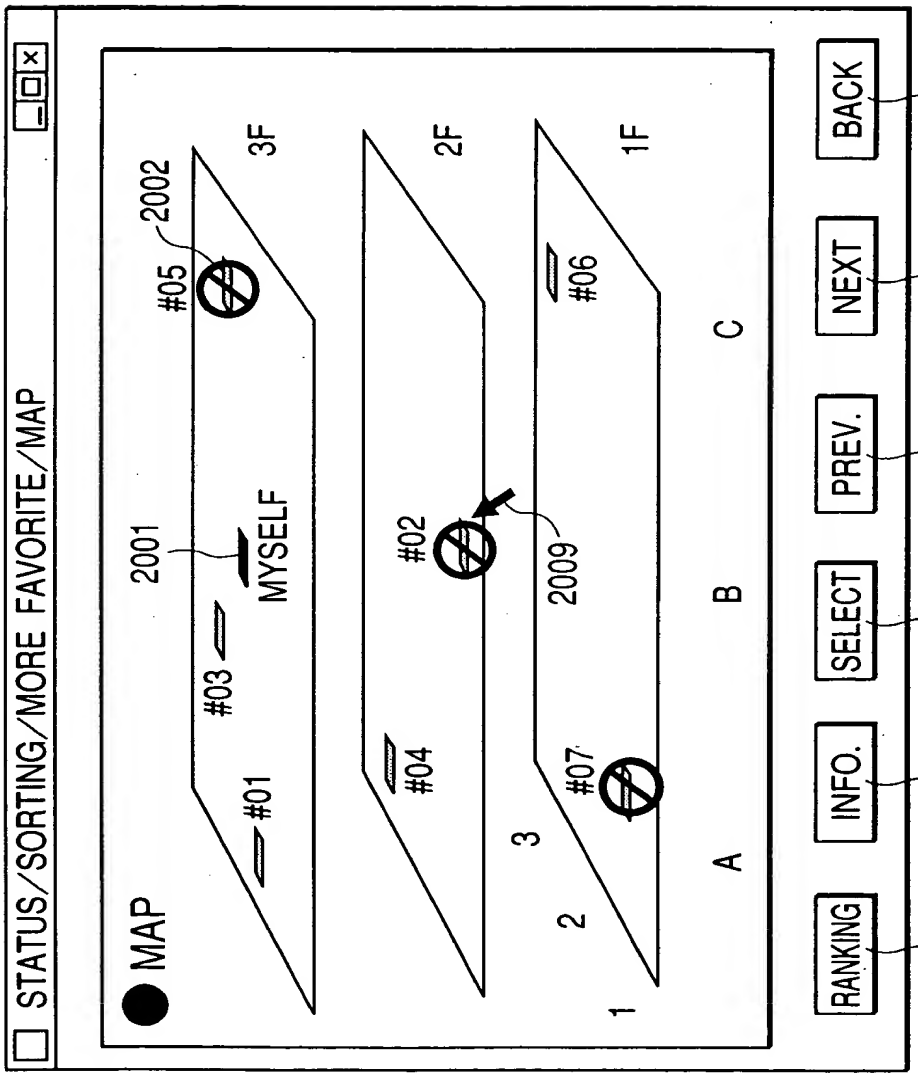

STATUS/SORTING/MORE FAVORITE/MAP
MAP
2001
2002
#05
3F
#03
MYSELF
#01
#02
2F
#04
2009
#06
1F
#07
3
2
1
A
B
C
RANKING
INFO.
SELECT
PREV.
NEXT
BACK
2003
2004
2005
2006
2007
2008

FIG. 21

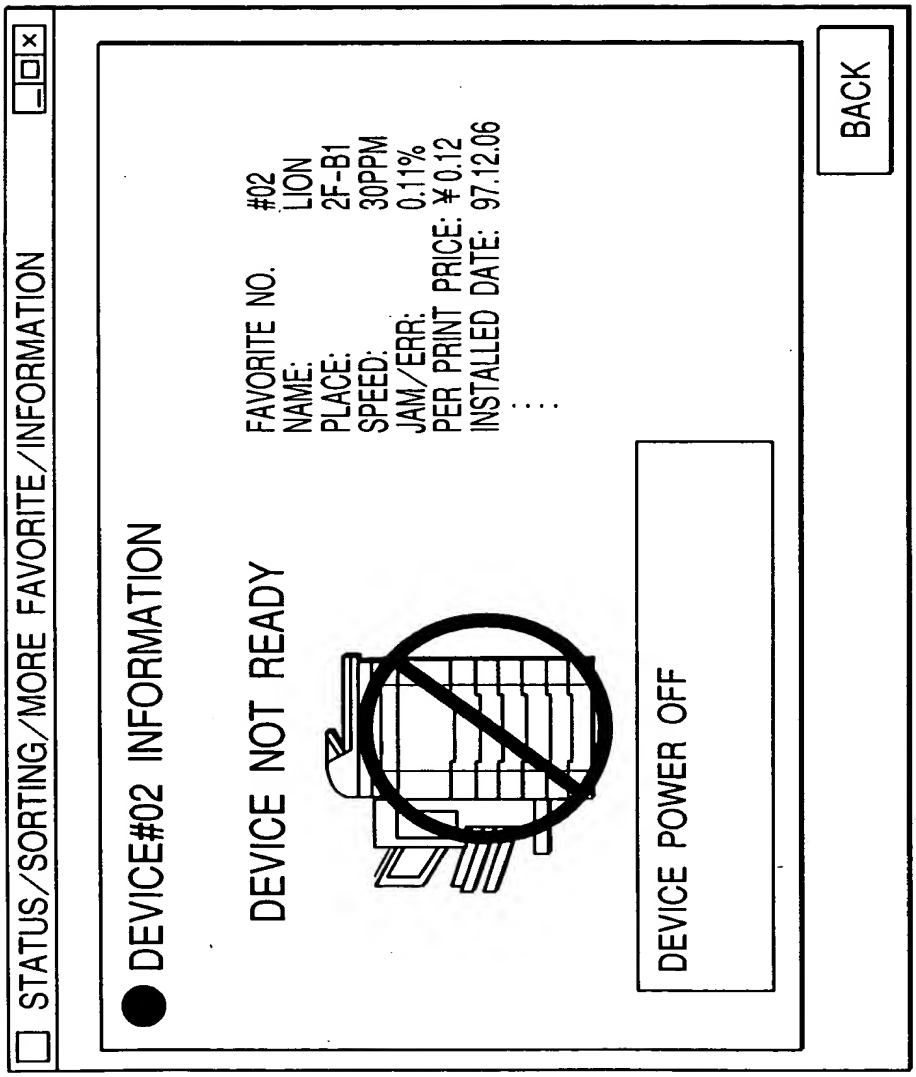

STATUS/SORTING/MORE FAVORITE/INFORMATION
DEVICE#02 INFORMATION
DEVICE NOT READY
FAVORITE NO. #02
NAME: LION
PLACE: 2F-B1
SPEED: 30PPM
JAM/ERR: 0.11%
PER PRINT PRICE: ¥0.12
INSTALLED DATE: 97.12.06
....
DEVICE POWER OFF
BACK

FIG. 22

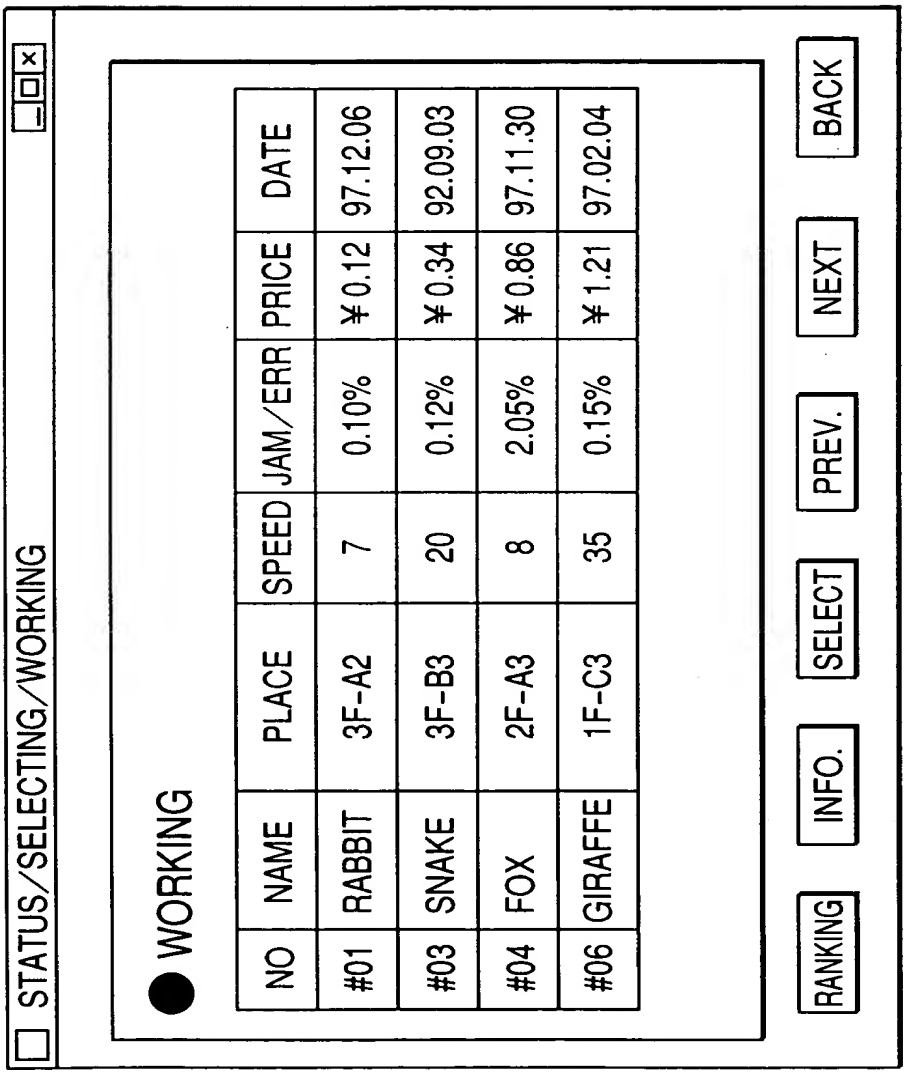

STATUS/SELECTING/WORKING
WORKING
NO
NAME
PLACE
SPEED
JAM/ERR
PRICE
DATE
#01
RABBIT
3F-A2
7
0.10%
¥0.12
97.12.06
#03
SNAKE
3F-B3
20
0.12%
¥0.34
92.09.03
#04
FOX
2F-A3
8
2.05%
¥0.86
97.11.30
#06
GIRAFFE
1F-C3
35
0.15%
¥1.21
97.02.04
RANKING
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 23

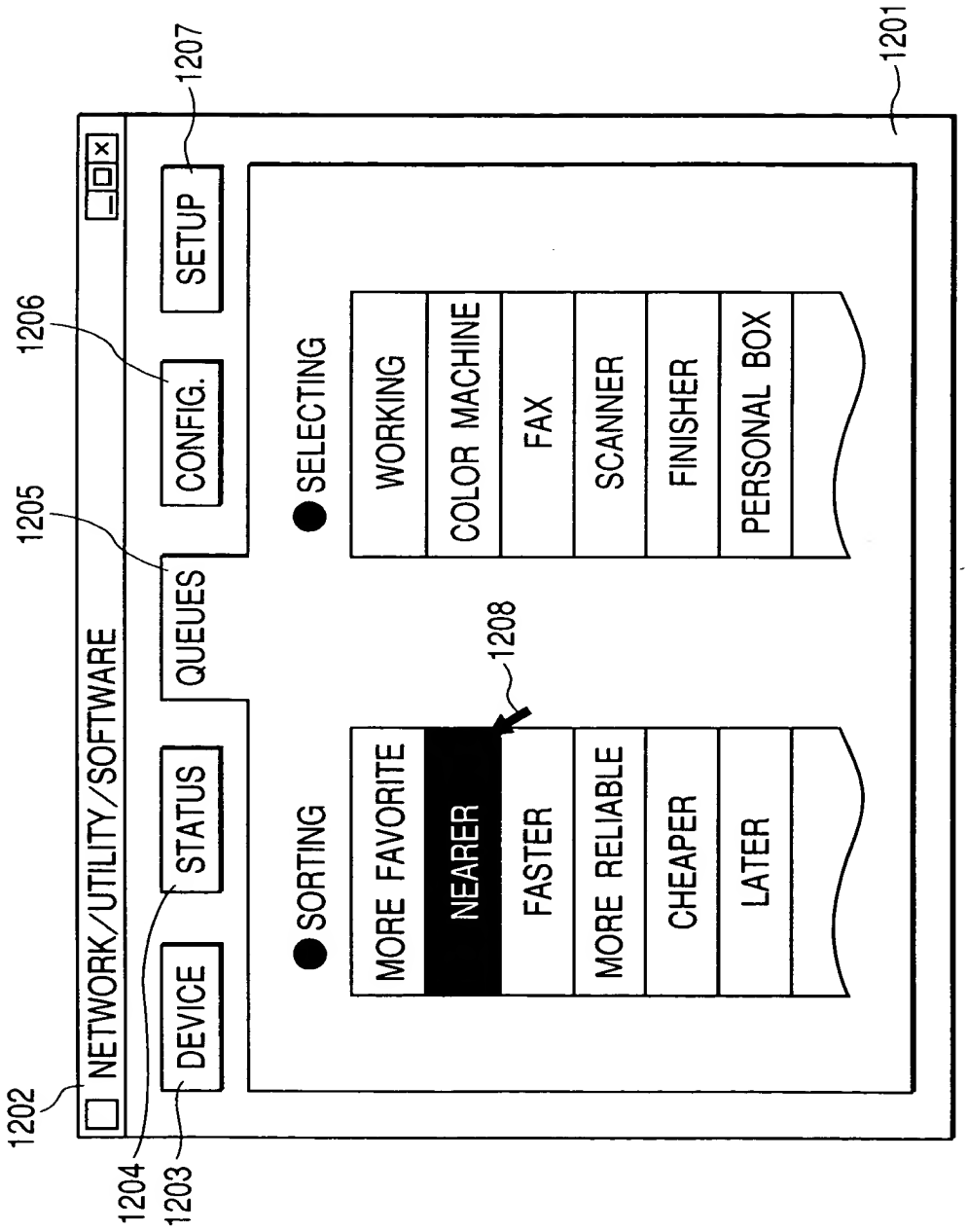

1201
1202
NETWORK/UTILITY/SOFTWARE
DEVICE
STATUS
QUEUES
CONFIG.
SETUP
1203
1204
1205
1206
1207
SELECTING
WORKING
COLOR MACHINE
FAX
SCANNER
FINISHER
PERSONAL BOX
SORTING
MORE FAVORITE
NEARER
FASTER
MORE RELIABLE
CHEAPER
LATER
1208

FIG. 24

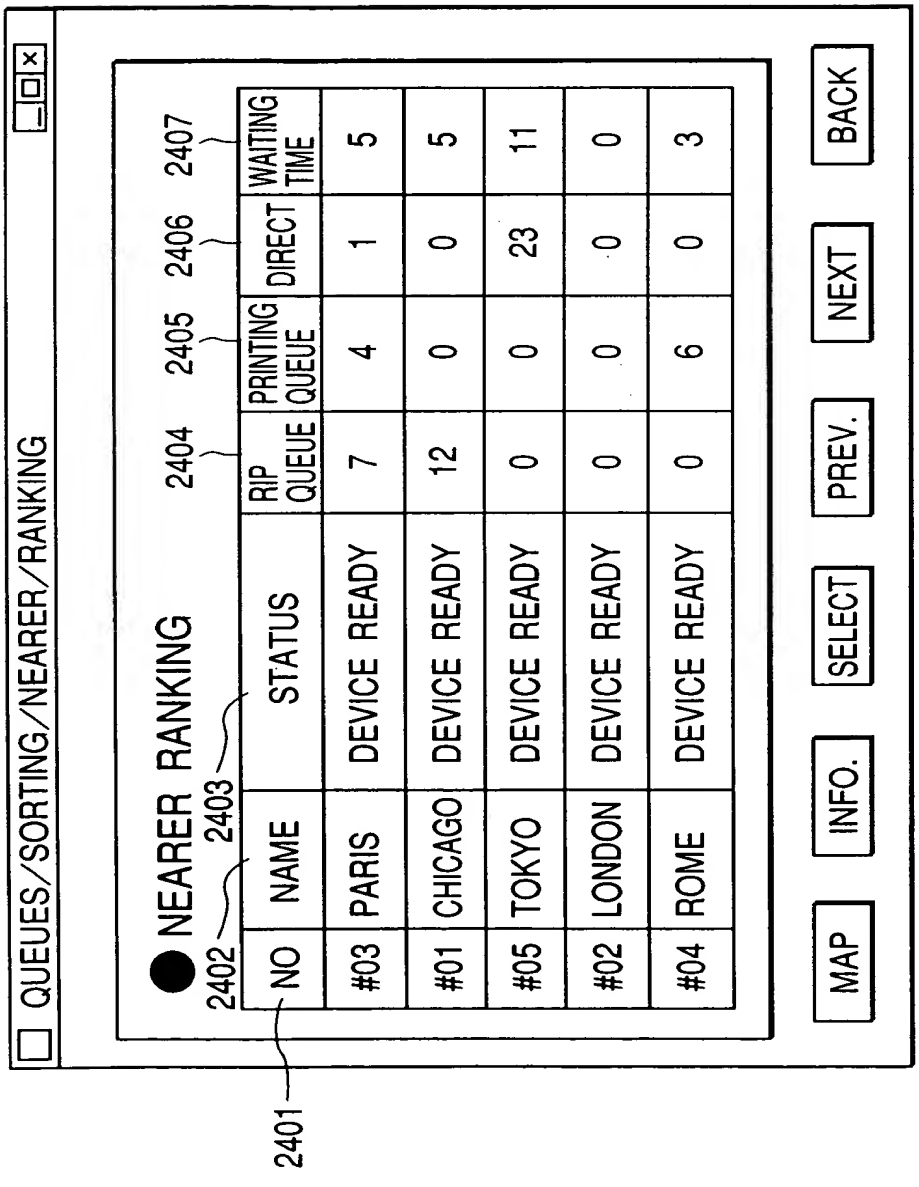

QUEUES/SORTING/NEARER/RANKING
NEARER RANKING
2401
2402
2403
2404
2405
2406
2407
NO
NAME
STATUS
RIP QUEUE
PRINTING QUEUE
DIRECT
WAITING TIME
#03 PARIS DEVICE READY 7 4 1 5
#01 CHICAGO DEVICE READY 12 0 0 5
#05 TOKYO DEVICE READY 0 0 23 11
#02 LONDON DEVICE READY 0 0 0 0
#04 ROME DEVICE READY 0 6 0 3
MAP
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 25

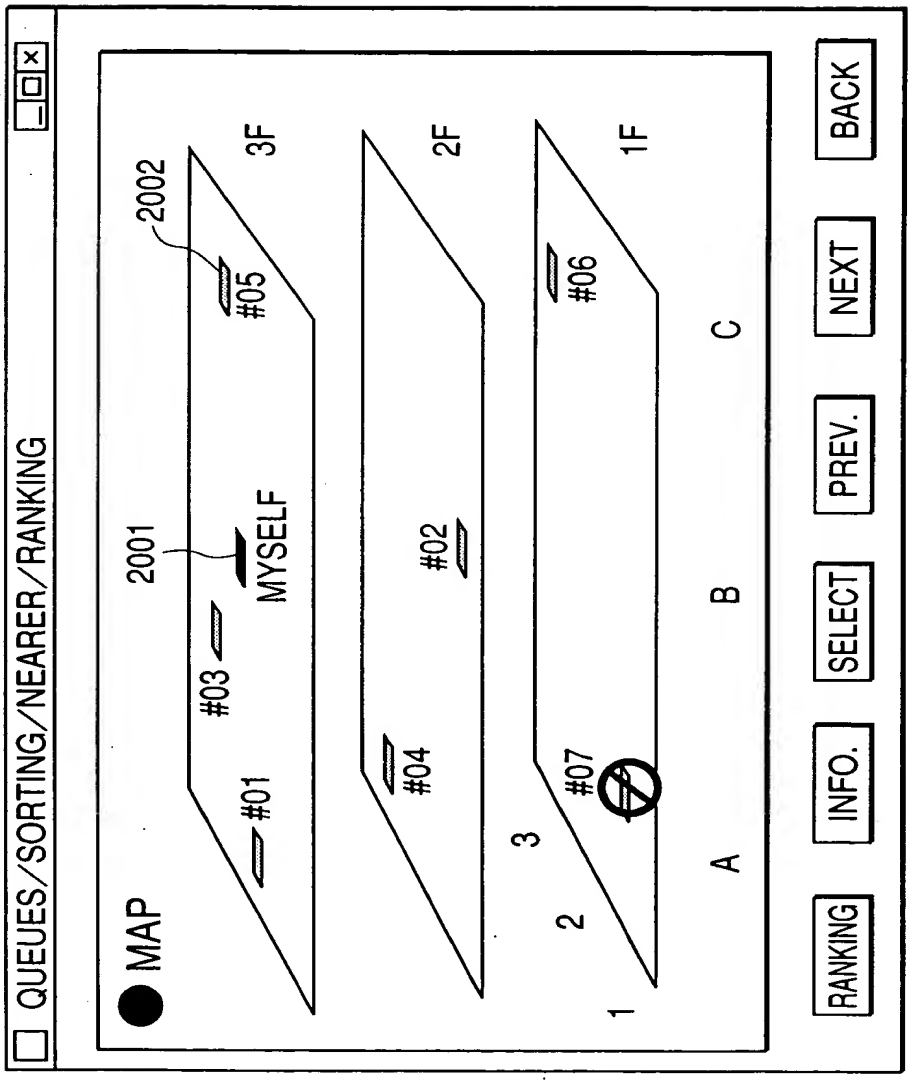

QUEUES/SORTING/NEARER/RANKING
MAP
2001
2002
#01
#02
#03
#04
#05
#06
#07
MYSELF
3F
2F
1F
1
2
3
A
B
C
RANKING
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 26

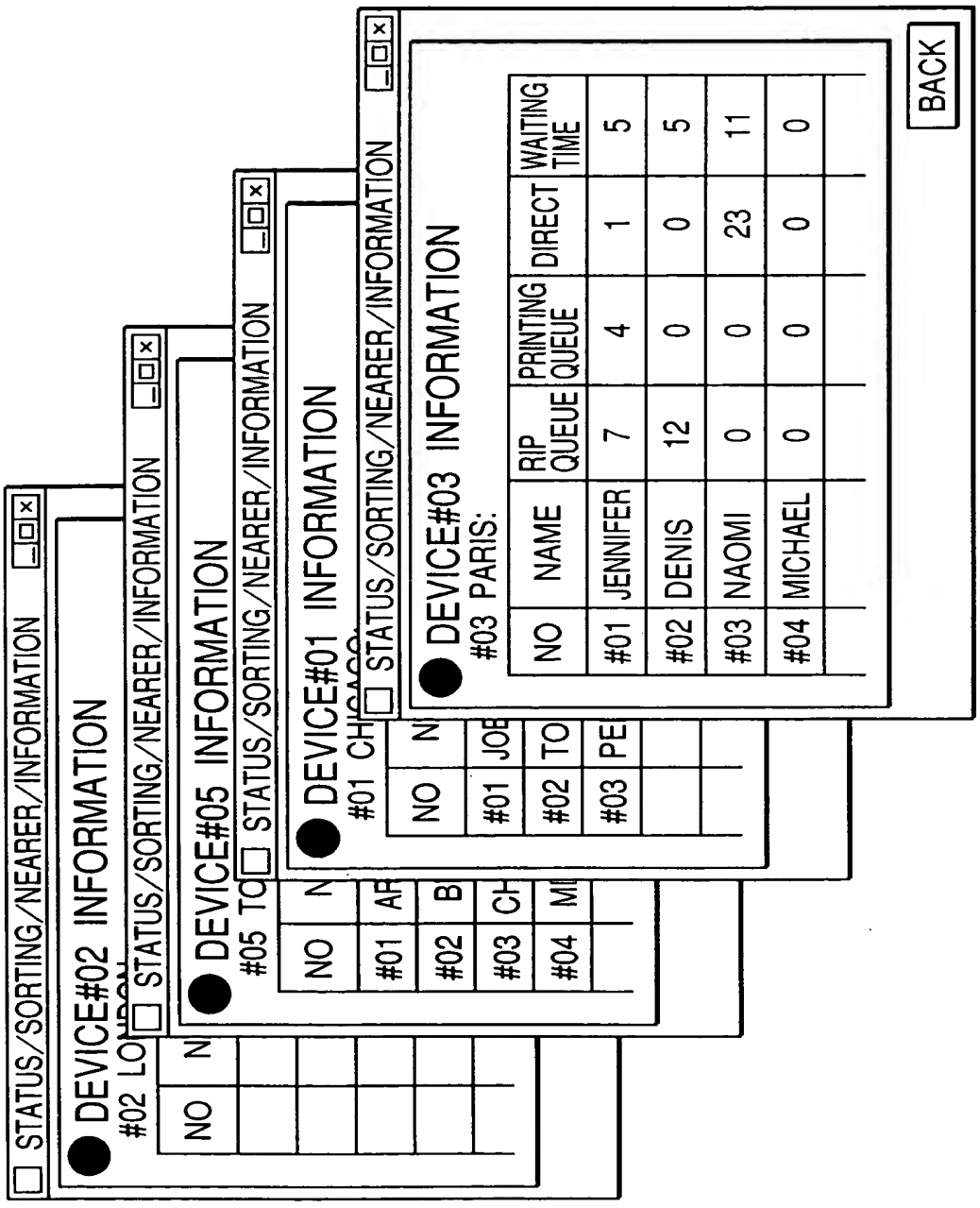

STATUS/SORTING/NEARER/INFORMATION
DEVICE#02 INFORMATION
STATUS/SORTING/NEARER/INFORMATION
DEVICE#05 INFORMATION
STATUS/SORTING/NEARER/INFORMATION
DEVICE#01 INFORMATION
STATUS/SORTING/NEARER/INFORMATION
DEVICE#03 INFORMATION
#03 PARIS:
NO
NAME
RIP QUEUE
PRINTING QUEUE
DIRECT
WAITING TIME
#01 JENNIFER 7 4 1 5
#02 DENIS 12 0 0 5
#03 NAOMI 0 0 23 11
#04 MICHAEL 0 0 0 0
BACK

FIG. 27

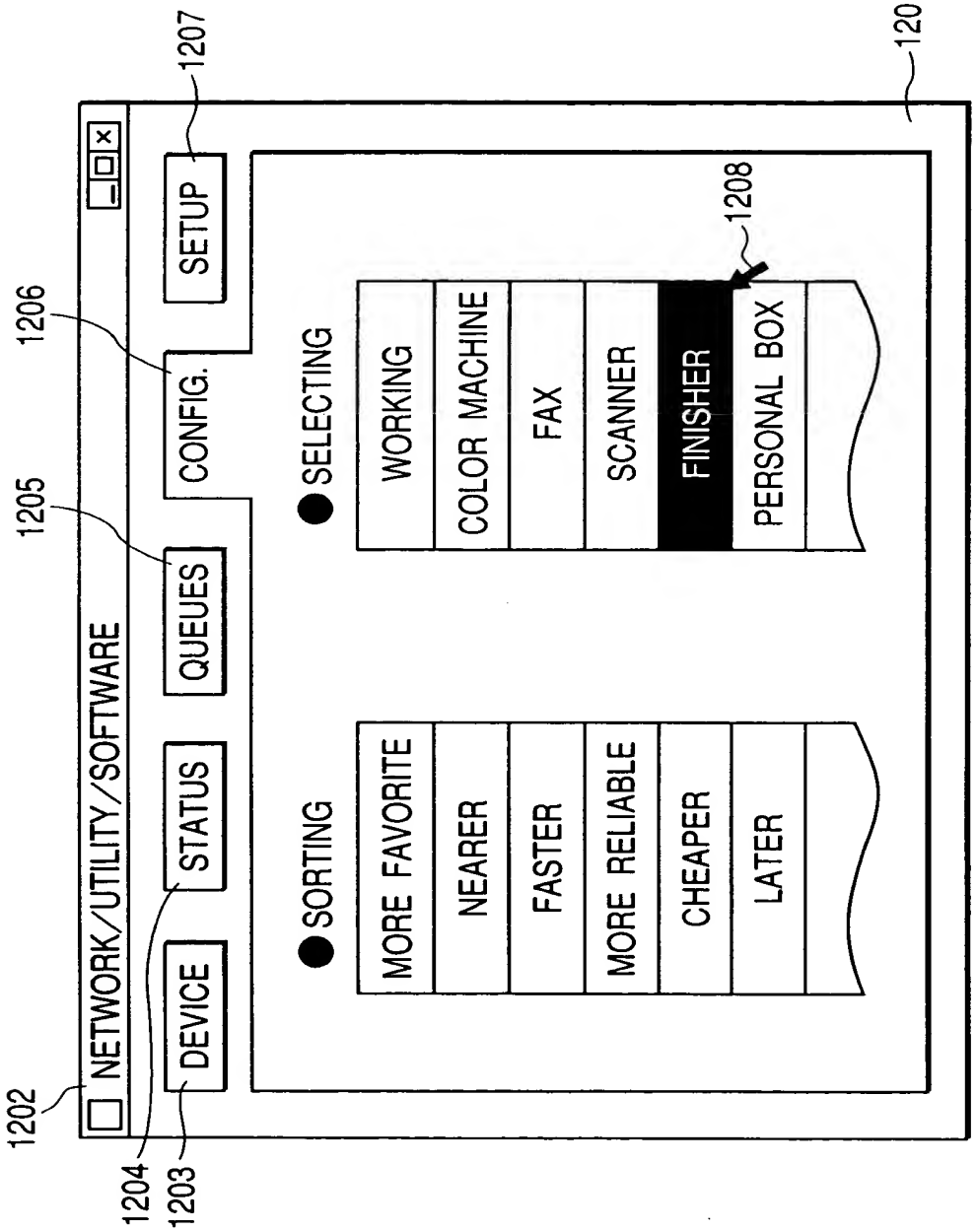

1201
1202
NETWORK/UTILITY/SOFTWARE
DEVICE
STATUS
QUEUES
CONFIG.
SETUP
1203
1204
1205
1206
1207
1208
SORTING
MORE FAVORITE
NEARER
FASTER
MORE RELIABLE
CHEAPER
LATER
SELECTING
WORKING
COLOR MACHINE
FAX
SCANNER
FINISHER
PERSONAL BOX

FIG. 28

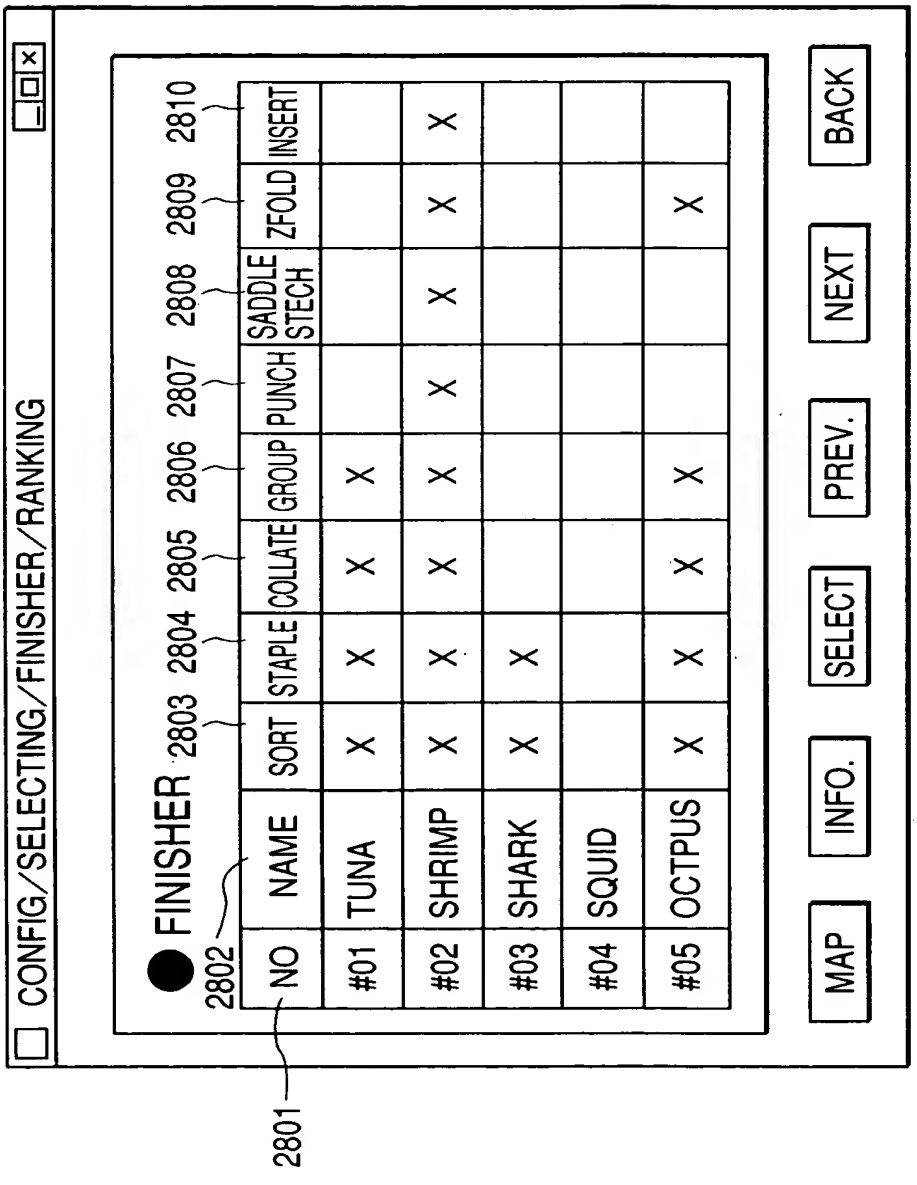

CONFIG/SELECTING/FINISHER/RANKING
FINISHER
2801
2802
2803
2804
2805
2806
2807
2808
2809
2810
NO
NAME
SORT
STAPLE
COLLATE
GROUP
PUNCH
SADDLE STECH
ZFOLD
INSERT
#01 TUNA X X X X
#02 SHRIMP X X X X X X X X
#03 SHARK X X
#04 SQUID
#05 OCTPUS X X X X X X
MAP
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 29

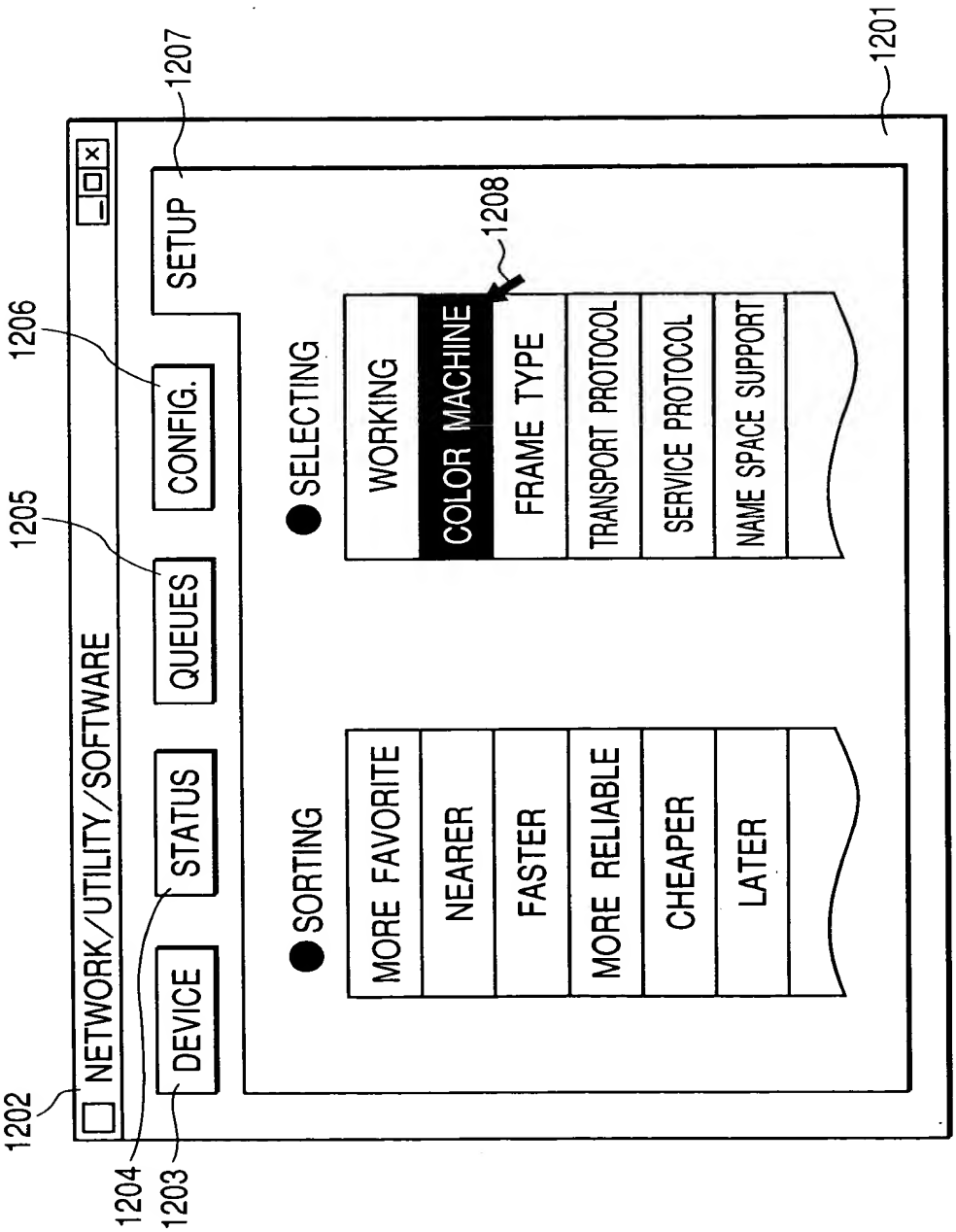

1201
1202
NETWORK/UTILITY/SOFTWARE
1203
DEVICE
1204
STATUS
1205
QUEUES
1206
CONFIG.
1207
SETUP
SORTING
MORE FAVORITE
NEARER
FASTER
MORE RELIABLE
CHEAPER
LATER
SELECTING
WORKING
1208
COLOR MACHINE
FRAME TYPE
TRANSPORT PROTOCOL
SERVICE PROTOCOL
NAME SPACE SUPPORT

FIG. 30

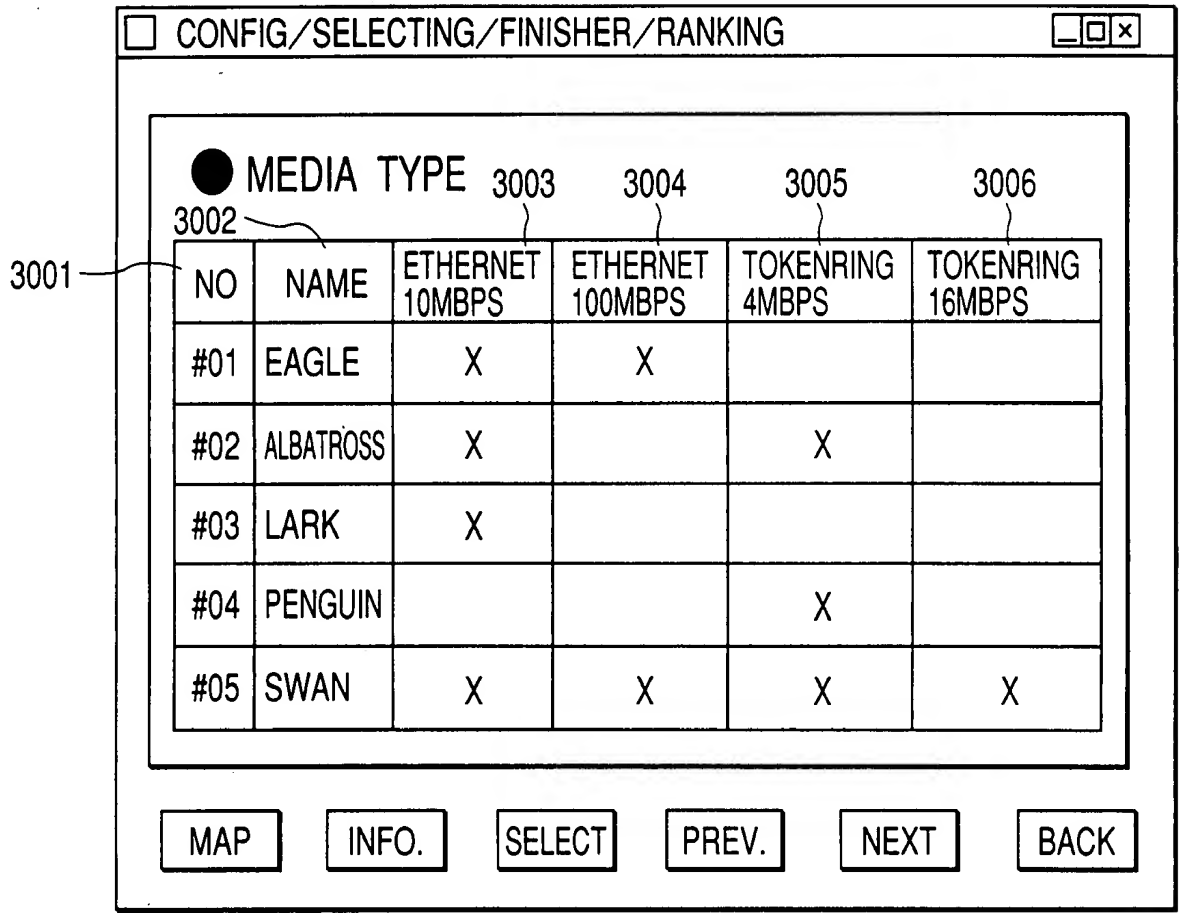

CONFIG/SELECTING/FINISHER/RANKING
MEDIA TYPE
3001
3002
3003
3004
3005
3006
NO
NAME
ETHERNET 10MBPS
ETHERNET 100MBPS
TOKENRING 4MBPS
TOKENRING 16MBPS
#01 EAGLE X X
#02 ALBATROSS X X
#03 LARK X
#04 PENGUIN X
#05 SWAN X X X X
MAP
INFO.
SELECT
PREV.
NEXT
BACK

FIG. 31

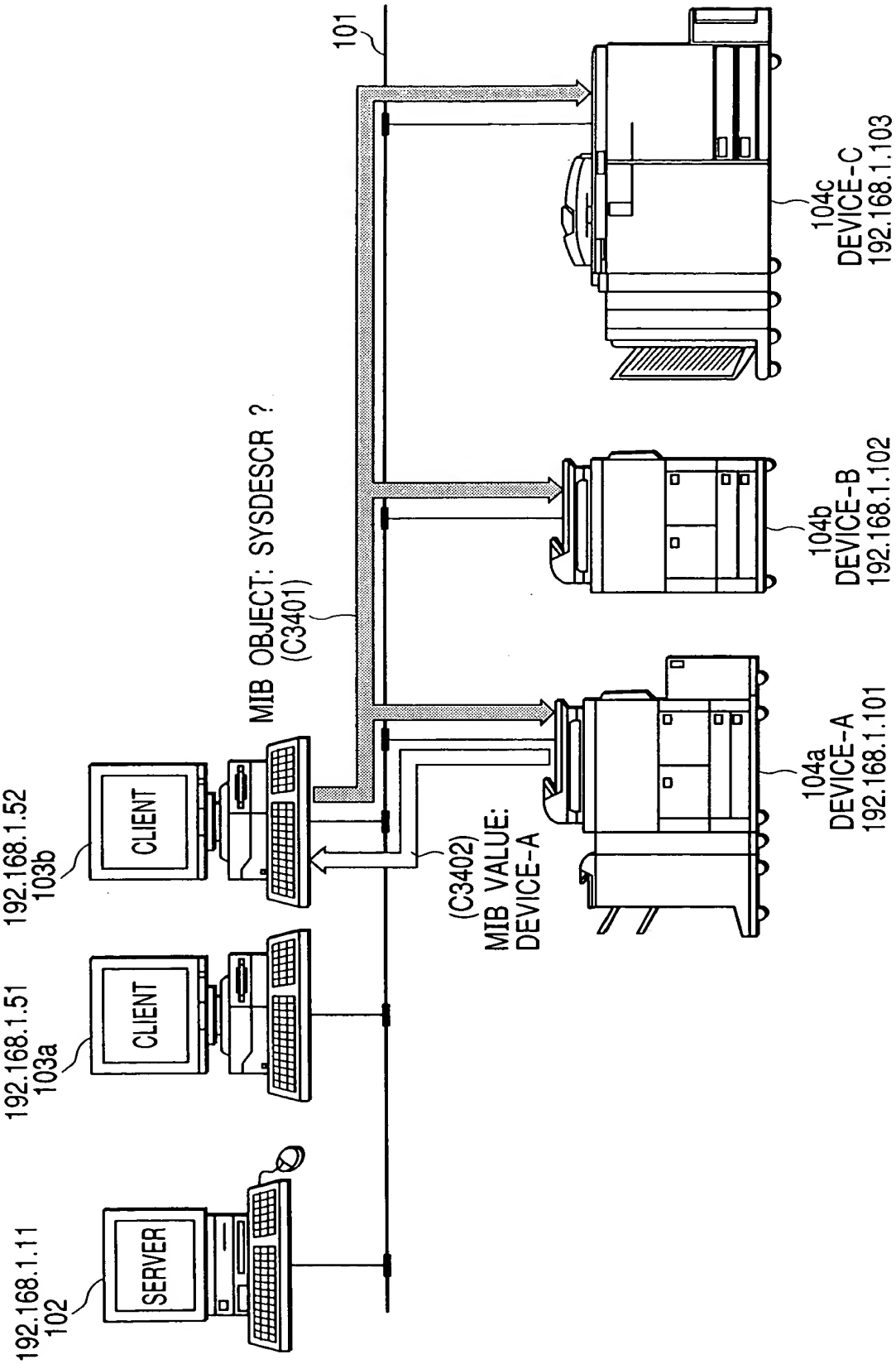

101
MIB OBJECT: SYSDESCR ?
(C3401)
(C3402)
MIB VALUE:
DEVICE-A
192.168.1.11
102
SERVER
192.168.1.51
103a
CLIENT
192.168.1.52
103b
CLIENT
104a
DEVICE-A
192.168.1.101
104b
DEVICE-B
192.168.1.102
104c
DEVICE-C
192.168.1.103

FIG. 32

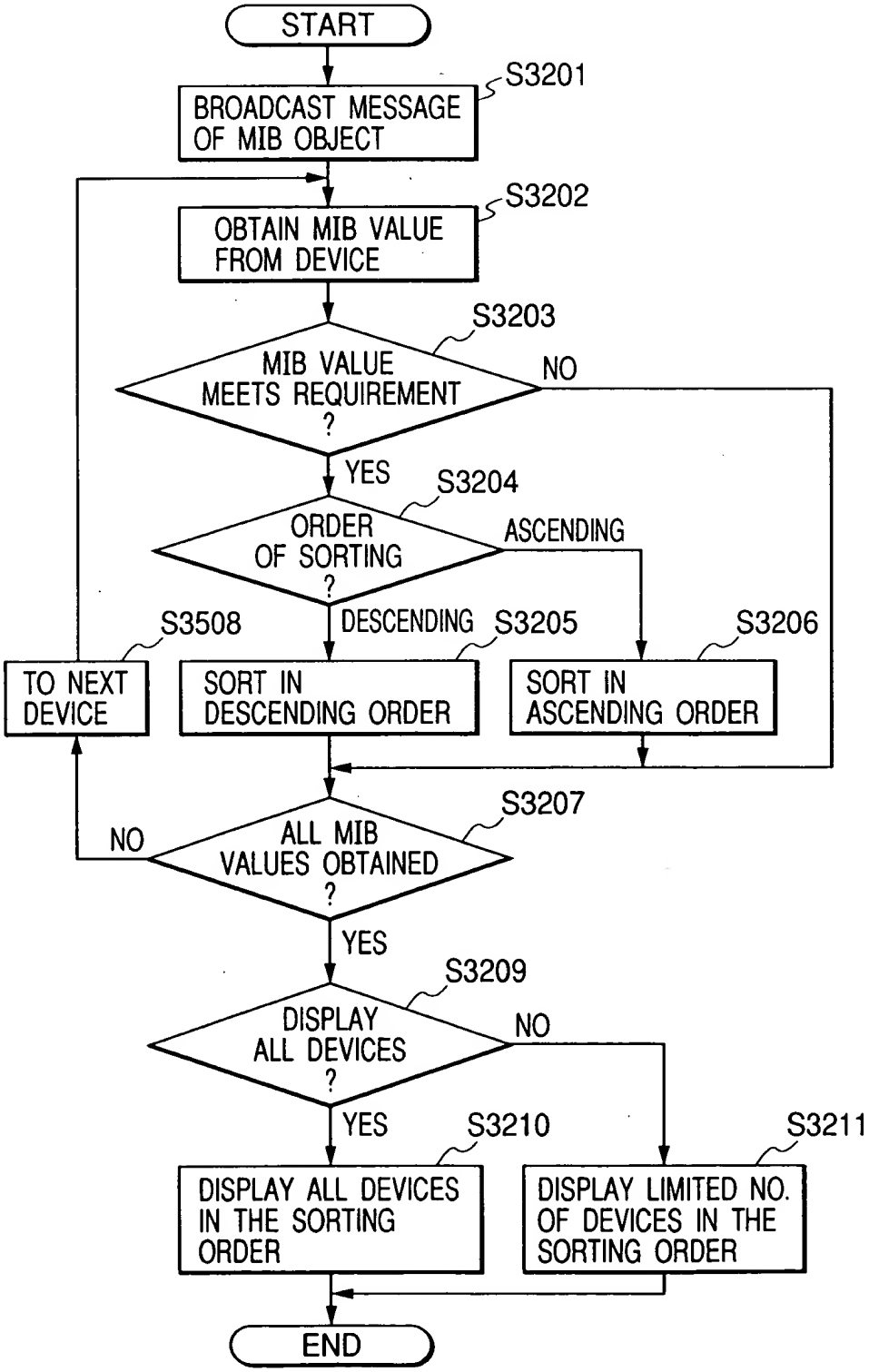

START
S3201
BROADCAST MESSAGE OF MIB OBJECT
S3202
OBTAIN MIB VALUE FROM DEVICE
S3203
MIB VALUE MEETS REQUIREMENT ?
NO
YES
S3204
ORDER OF SORTING ?
ASCENDING
DESCENDING
S3205
S3206
S3508
TO NEXT DEVICE
SORT IN DESCENDING ORDER
SORT IN ASCENDING ORDER
S3207
NO
ALL MIB VALUES OBTAINED ?
YES
S3209
DISPLAY ALL DEVICES ?
NO
YES
S3210
S3211
DISPLAY ALL DEVICES IN THE SORTING ORDER
DISPLAY LIMITED NO. OF DEVICES IN THE SORTING ORDER
END

FIG. 33

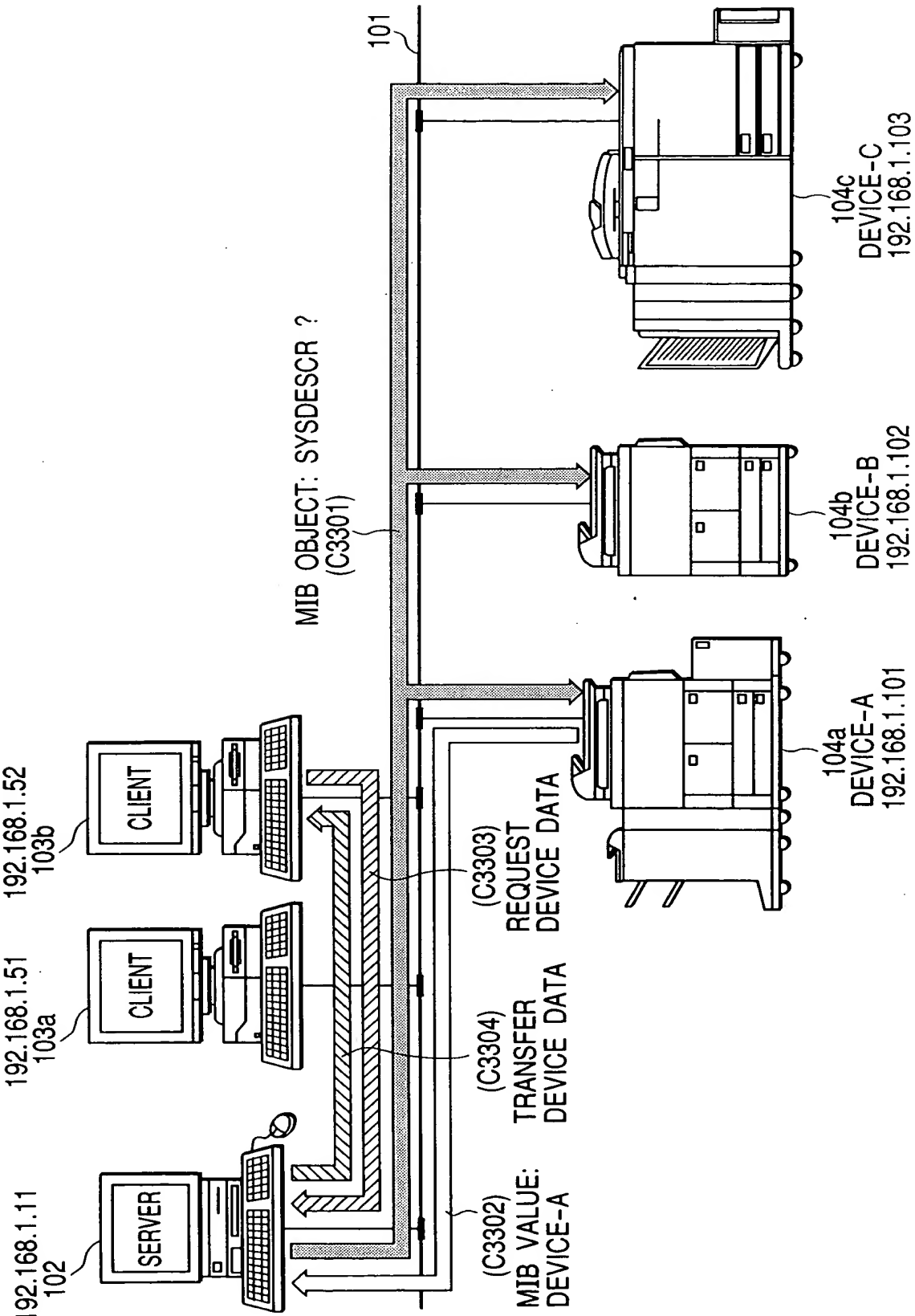

192.168.1.11
102
SERVER
192.168.1.51
103a
CLIENT
192.168.1.52
103b
CLIENT
101
MIB OBJECT: SYSDESCR ?
(C3301)
(C3302)
MIB VALUE:
DEVICE-A
(C3303)
REQUEST
DEVICE DATA
(C3304)
TRANSFER
DEVICE DATA
104a
DEVICE-A
192.168.1.101
104b
DEVICE-B
192.168.1.102
104c
DEVICE-C
192.168.1.103

FIG. 34

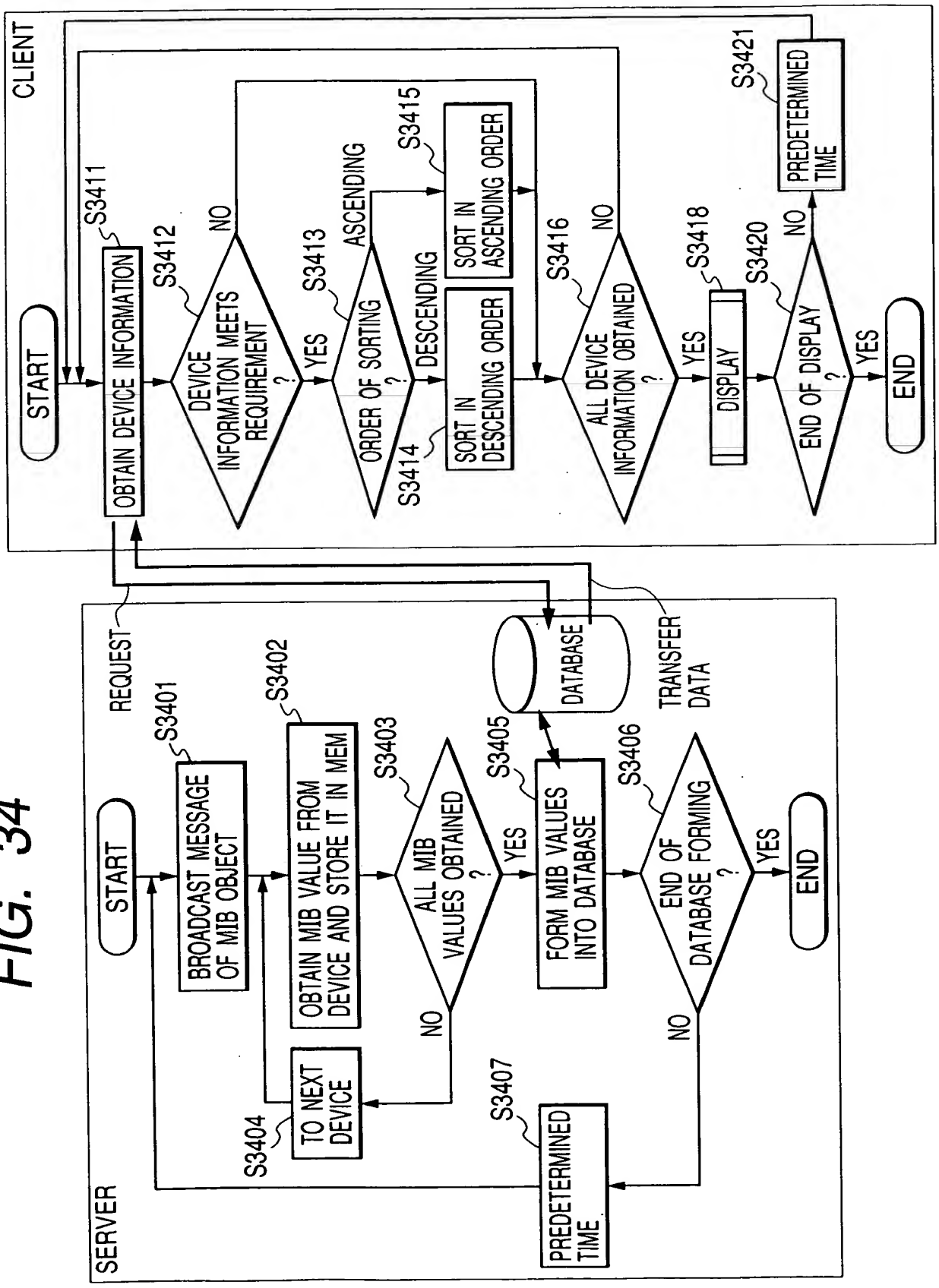

CLIENT
START
OBTAIN DEVICE INFORMATION
S3411
S3412
DEVICE INFORMATION MEETS REQUIREMENT ?
NO
YES
S3413
ORDER OF SORTING ?
ASCENDING
DESCENDING
S3414
SORT IN DESCENDING ORDER
S3415
SORT IN ASCENDING ORDER
S3416
ALL DEVICE INFORMATION OBTAINED ?
NO
YES
S3418
DISPLAY
S3420
END OF DISPLAY ?
NO
S3421
PREDETERMINED TIME
YES
END
REQUEST
TRANSFER DATA
DATABASE
SERVER
START
S3401
BROADCAST MESSAGE OF MIB OBJECT
S3402
OBTAIN MIB VALUE FROM DEVICE AND STORE IT IN MEM
S3403
ALL MIB VALUES OBTAINED ?
NO
YES
S3404
TO NEXT DEVICE
S3405
FORM MIB VALUES INTO DATABASE
S3406
END OF DATABASE FORMING ?
NO
YES
S3407
PREDETERMINED TIME
END

FIG. 35

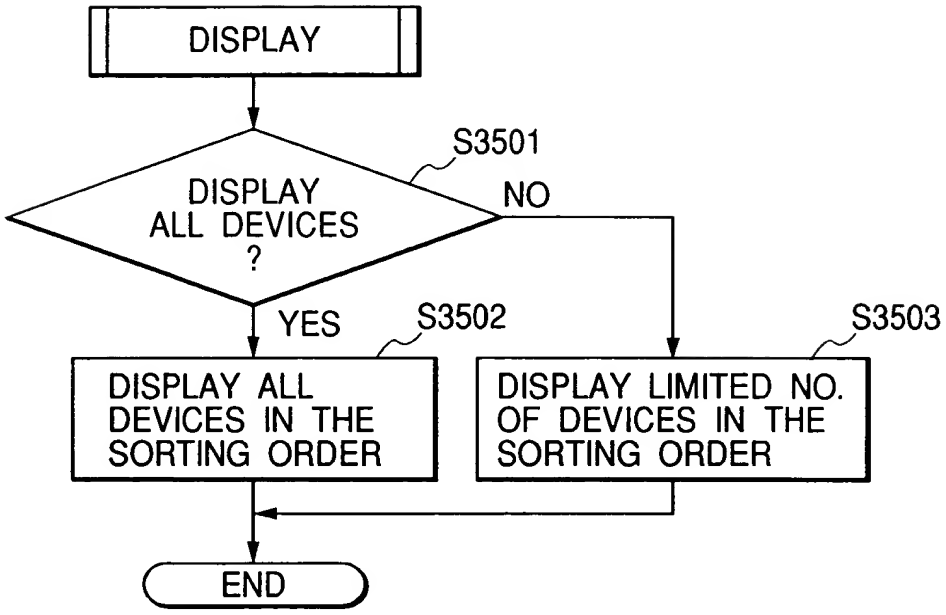

DISPLAY
S3501
DISPLAY ALL DEVICES ?
NO
YES
S3502
S3503
DISPLAY ALL DEVICES IN THE SORTING ORDER
DISPLAY LIMITED NO. OF DEVICES IN THE SORTING ORDER
END

FIG. 36

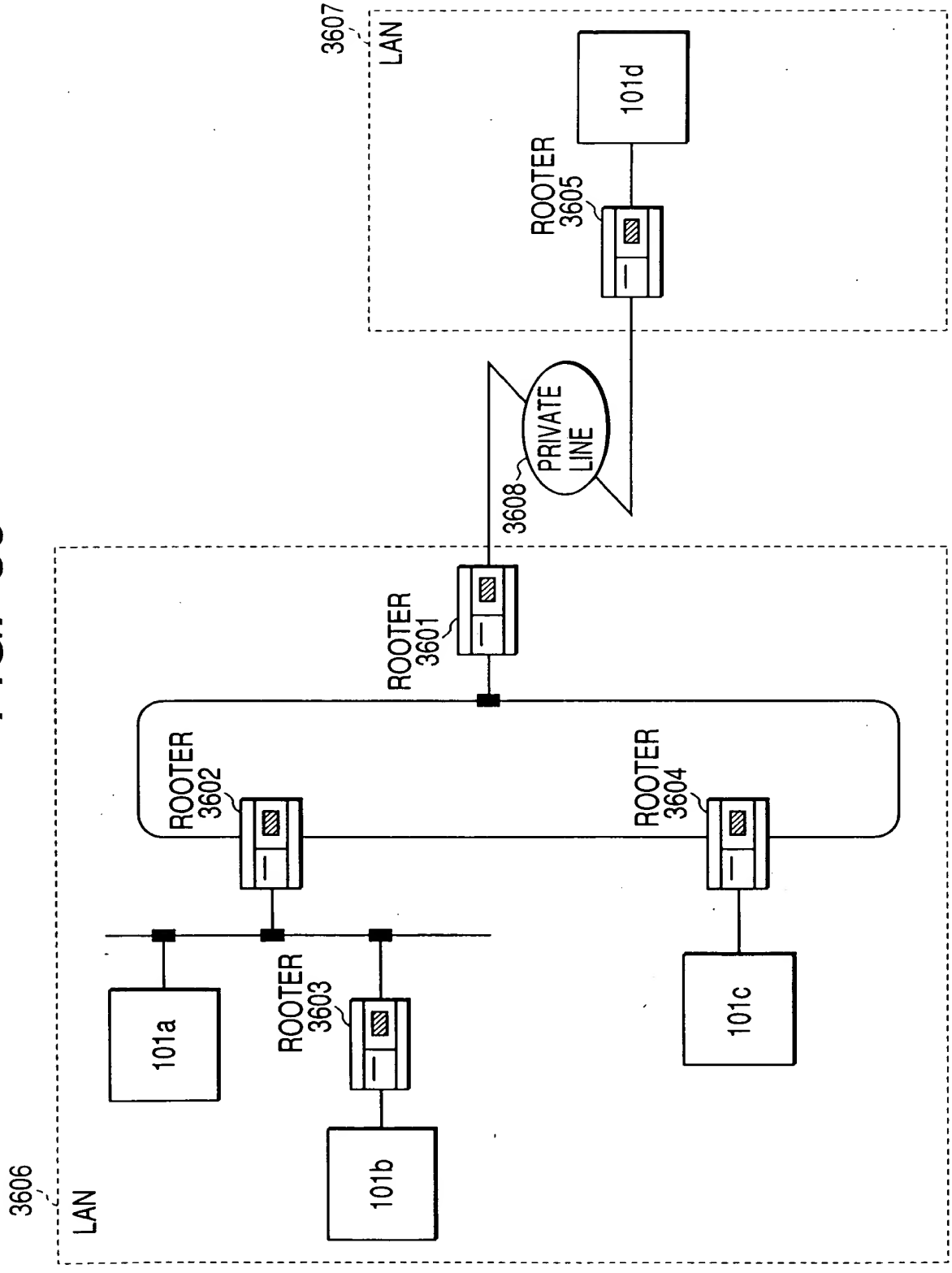

3607
LAN
101d
ROOTER
3605
PRIVATE
LINE
3608
ROOTER
3601
ROOTER
3602
ROOTER
3604
101a
ROOTER
3603
101c
101b
3606
LAN

FIG. 37

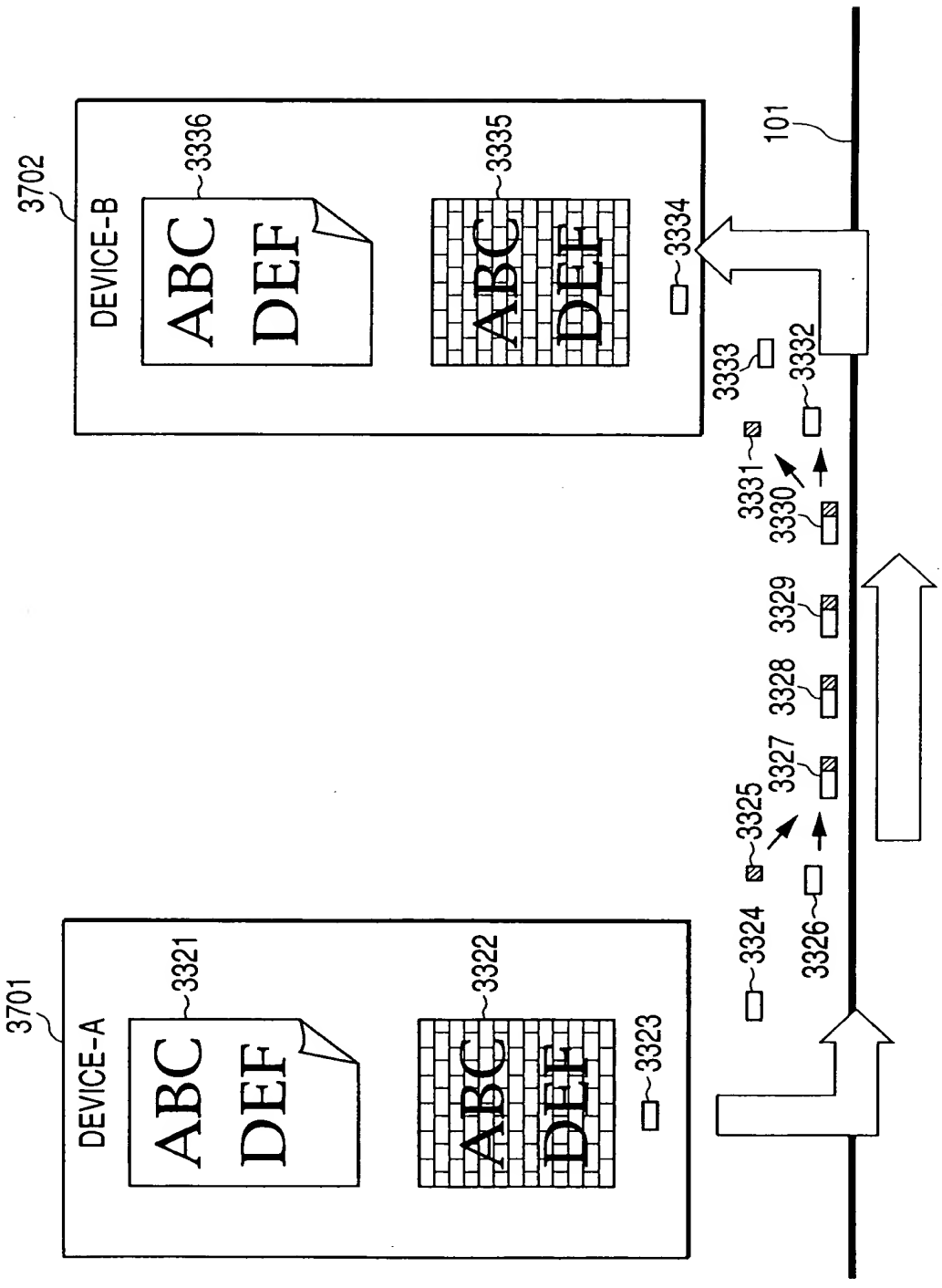

3701
DEVICE-A
ABC
DEF
3321
3322
3323
3324
3325
3326
3327
3328
3329
3330
3331
3332
3333
3334
3335
3336
3702
DEVICE-B
101

FIG. 38

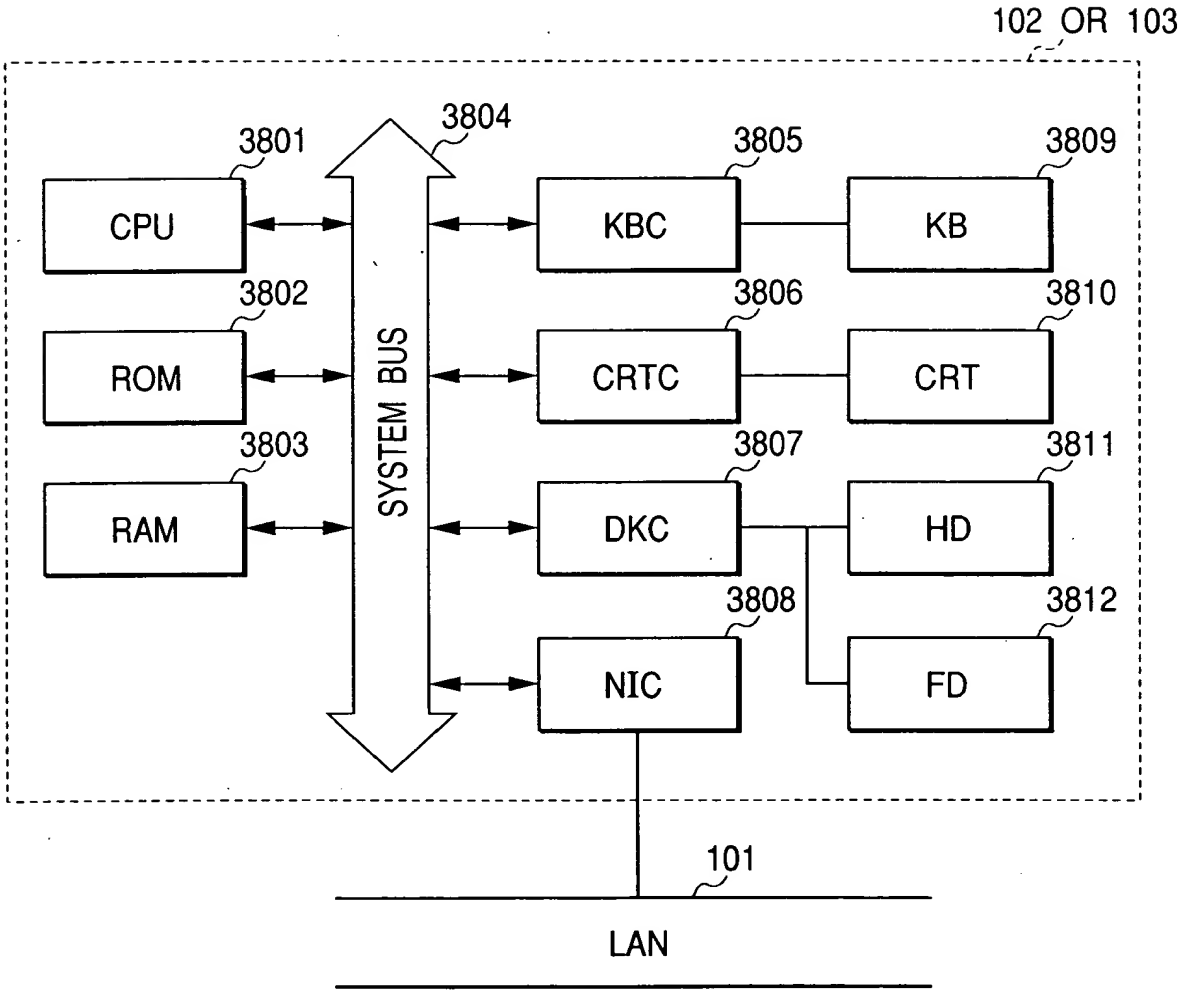

102 OR 103
3801
3804
3805
3809
CPU
KBC
KB
3802
3806
3810
ROM
CRTC
CRT
SYSTEM BUS
3803
3807
3811
RAM
DKC
HD
3808
3812
NIC
FD
101
LAN

FIG. 39

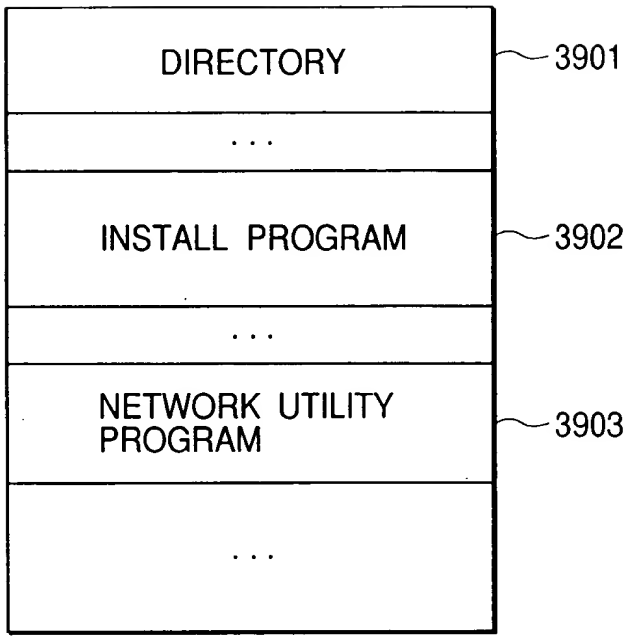
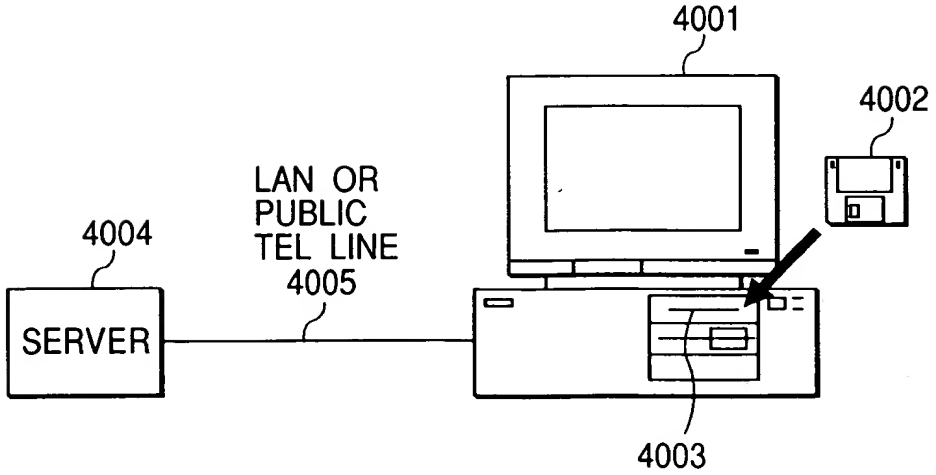

DIRECTORY
3901
. . .
INSTALL PROGRAM
3902
. . .
NETWORK UTILITY PROGRAM
3903
. . .

FIG. 40


4001
4002
LAN OR PUBLIC TEL LINE
4005
4004
SERVER
4003